



RISK. FAIL. RISE.



M. COLLEEN CRUZ



RISK. FAIL.

RISE.



**A Teacher's Guide to
Learning from Mistakes**

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*For New York City,
which has taught so many of us about
risk, failure, and still managing to*

rise





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Introduction

These Brains Are Made for Mistaking

Much to my mother’s chagrin, I have never been a perfectionist.

Whether it was cleaning the bathroom, checking my spelling, or placing a bumper sticker straight, I’ve always been comfortable with the little errors and slips that occur on a daily basis. I am proudly and profoundly imperfect. It’s become as much of a part of my identity as my pessimism or my love of Brooklyn or being a mom. To double down, I collect little catchphrases about this embrace of imperfection and have for a long time. If you’ve hung out with me at all, you’ve likely heard me quote any of the following:

“Good enough for government work!”—not sure who said it first, but picked it up from my high school chemistry teacher, Mr. Flint

“Done is better than perfect.”—from a poster Sheryl Sandberg has in her office

“When you decide that you want to be brave, it opens up way more possibilities than trying to be perfect ever does.”—Alexandria Ocasio-Cortez

Most of the other educators I know also embrace some sort of imperfectionism. If you’re holding this book you probably do too. You believe, and probably say to your students, that mistakes are a natural part of learning. And, of course, this is true. But how much do your curricular choices, teaching methods, and student behaviors reflect this belief? After all, you’re not the first teacher, nor will you be the last, who has talked to their students about how true learning is an imperfect process. As I saw how little our classrooms reflect this belief, I started to wonder if perhaps we’re all just paying lip service to an idea that we haven’t yet created systems to support.

I know this has been true for me in my work as an educator. We all talk a lot about mistakes, but if we're honest, we don't find ourselves or our students truly embracing mistakes practically and visibly on a regular basis. Digging into the research, habits, and expectations educators have about mistakes, I've gained a greater awareness of the contrast between what so many of us practice when it comes to mistakes and what we say. Maybe the most significant example of this is that we tell kids we value mistakes, but at the end of every marking period they are judged on those very things we tell them not to worry about. Recently I got into a huge discussion with a group of teachers across grade levels who were grappling with this issue. All agreed that they valued growth mindset and the importance of kids feeling free to take risks and make errors on the way to learning. But they all also owned that students who made fewer errors got higher grades. And with so many schools shifting to digital grading systems where students and their caregivers can check out their regular, often daily, grades, the real-time consequences of taking a learning risk is something that very much might result in accusations thrown across the dinner table. The teachers were concerned about the disconnect between the words they said in class each day about risk-taking and the very real-world consequences of getting a bad grade in the grading portal. "There's a big difference between feedback and grading, but the system we're using isn't really differentiating that."

Conversations like these made me realize that we as educators need better models of practice on mistake-making. Although we might not yet be able to change our district grading systems, we can still create space for mistake-making in our classrooms. This book is my effort to share what research studies say on mistake-making as part of learning and what that means for our teaching.

Unintentional Mistakes We Can Learn From

It's always important to have a working definition of whatever topic you're studying. The term *mistake* covers a wide range of behaviors, from intentional to unintentional harm. I suspect that the broad definition is part of the reason speaking about mistakes can be such slippery work. To avoid that, I've chosen to delineate between the word *mistake* and purposeful wrongdoing, or as the Catholic-raised me might call it, sin. Too often we hear famous people apologize for their "mistake" of embezzling, having an affair, or lying. Or we cajole a student into admitting to the "mistake" of punching someone in the face, cheating on a test, or vandalizing the bathrooms. Those are all examples of what I would call wrongdoing. When the person acted, they knew what they were doing was wrong but chose to do it anyway, even if it was for a seemingly justified reason.

A mistake happens by accident: I meant to turn in the attendance list, but I forgot. A wrongdoing or sin happens mindfully: I knew it was wrong to take home the toilet paper from the teacher's bathroom, but I did it anyway. It is very rare for someone to *accidentally* end up stealing. Just because the active party might be filled with regret in both accidental and intentional mistakes, the rationale and ways to repair and grow are very different. It seems to me that one of the (many) reasons there is so much shame and denial attached to garden variety mistakes is that too often purposeful wrongdoing and mistakes are conflated. Even though those terms are often used interchangeably, I want to bring light to our unconsciousness around some mistakes in schools and so will focus on mistakes in their accidental form. Mindful wrongdoing will need to go in another book.

In the essays and lessons in this book, when we talk about mistakes, we'll concentrate on errors, missteps, and blunders—situations where the teacher or student had the intention to do one thing but ended up doing something else. The intention and outcome were different—whether tripping on the stairs, miscalculating a math problem, or giving the wrong year for a historical event. The point is that awareness sharpens intention and improves outcomes. Of course, we can't achieve perfect awareness. Sometimes the mistake-maker knows right away that a mistake was made (breaking the *e* key by pressing too hard). Sometimes the mistake-maker doesn't know until later (the envelope gets returned because there's no stamp). And sometimes the mistake is never discovered. Sometimes it is only after making a mistake that we realize we had a whole bunch of intentions we weren't even aware of (Hello, wrong name on the email that made me aware I intended that note to feel personal and not cut and pasted!). But the more aware we are of why we make certain mistakes and what we can do to improve situations once we've made them, the more effective our teaching and learning will be.

And let's acknowledge that not every environment makes it safe to focus on learning from our mistakes. Even though mistake-making is part of learning, in our current climate in schools, mistakes can sometimes feel complicated to discuss and define in honest ways. The work of this book is to try to get us past that. If we can create school cultures where we talk honestly about mistakes, then we can grow and create opportunities for children to grow in all the ways they deserve. And we deserve those opportunities too.

Why People Make Mistakes

Mistakes, like most things humans do, are both impossibly unique and boringly predictable. When looking across your typical day in school, you've likely done or witnessed a whole slew of mistakes: yelling out the wrong answer, accusing the wrong kid of goofing off,

misspelling a word, inaccurately measuring the materials for an experiment, leaving the intercom on when the announcements are through. Our responses to mistakes are largely affected by whether or not we committed them, if they were committed against us, or if we merely observed them. Often, our forgiveness hinges on whether we're the victim or not. In his explanation of the difference between tragedy and comedy, Mel Brooks implies this: "Tragedy is when I break a fingernail. Comedy is when you fall into an open sewer and die" (Byrne 2012, 78). The less affected we are by the mistake, the more we're able to have a good sense of humor, empathy, and an ability to dispassionately study mistakes. For that reason, active study of mistakes before they happen, and of past mistakes, can help distance personal egos enough to lay the groundwork for a mistake-welcoming school culture.

When we create space for that more objective distance, we can study the common reasons we make mistakes. Kathryn Schulz in her book *Being Wrong: Adventures in the Margin of Error* (2011) offers useful categories of how mistakes start.

Take a moment and hold in your mind a recent mistake you made in school. Then, look at Schulz's list of origin of errors (see Figure I-1) to decide what was the catalyst(s) for your own.

Origin of Error	Teacher Examples
<p>Our Senses—When we see, smell, taste, touch, or hear something we can be moved to action that turns out wrong.</p>	<p>We see a student in the hallway and are sure they should be in a classroom. We call out their name, only to realize as we get closer that they are not the same student we thought they were. A student responds to a question we ask in class and we snap at them because we think they said something snarky, but we just misheard.</p>
<p>Knowledge—Kathryn Schulz describes knowledge as "belief with citations." When we hold knowledge about something that turns out to not be accurate or it turns out we thought we knew something that we didn't.</p>	<p>We find ourselves toe to toe with a student, arguing in the middle of class because the student insisted that rats did not cause the black plague. We are absolutely taken aback that the student would question us so publicly and especially about something that was settled science. In a fit of anger, we turn to the internet in front of the class to prove our point, only to find out that there had actually been a couple of recently published studies on it. And although it hasn't been fully concluded that rats did not spread the black plague, it is no longer considered certain that they did. We immediately apologize and realize how powerful admitting our error can be to student engagement.</p>

Origin of Error	Teacher Examples
<p>Belief—So much of our actions are based on our beliefs rather than factual evidence.</p>	<p>We believe that is the school’s policy so we enforce it. We believe a parent is angry at us so we go out of our way to win them over. We believe in someone’s fixed nature so we make a decision about them. For example, we hear about a kid long before he is in our class. We’ve seen him in the halls and he’s never smiling. We believe what other teachers have said and decide he’s a bad kid and we don’t want that kind of trouble in our classroom. But then he shows up. And once he gets there, we realize he’s a kid who faces a lot of obstacles when trying to express himself in conversation or in writing. When he stumbles other kids mock him. When we give him tools to express himself, he gets friendlier and less disruptive. All at once we realize our belief is based on gossip and assumption.</p>
<p>Evidence—Sometimes we have some evidence. Hard facts about something. We then take action based on a conclusion that we are drawing based on very real evidence. Often when mistakes happen based on evidence, it is because we made an assumption.</p>	<p>A student isn’t in our classroom. That’s our first piece of evidence. We know an important midterm was scheduled for the day. Our second piece of evidence. When we ask the class if anyone knows the student’s whereabouts, someone smirks. We look across our three pieces of evidence and assume they are skipping. We find out later they were sick in the nurse’s office, waiting to be picked up and taken home. I find mistakes based off real evidence some of the hardest to cope with. There is something so alluring about evidence, so concrete that it is easy to forget that we are still making assumptions that could lead to mistakes.</p>
<p>Society—Often we make decisions because they are what society—writ large or small—expects or is doing. Society can be a country, city, neighborhood, or school.</p>	<p>When everyone in the English department assigns an hour a night of homework, we do too it because it’s what society says is right. Even if we might have a funny feeling about it, even if we don’t think our kids really need it. Then, later we find out every other department is doing the same thing and kids are buckling under four hours of homework a night. Deciding to correct this type of mistake can be harder than most because we now have to not only own responsibility for our errors, but we are in effect, by changing, suggesting that our colleagues are mistaken. The pressure for colleagues to support each other is real and logical; however, when colleagues are wrong it can be difficult to navigate that path.</p>

continues

Origin of Error	Teacher Examples
<p>The Allure of Certainty—All of us hold things that we are absolutely certain we are right about. Whether it’s morality or culture or facts, there are things we know for sure, without a shadow of doubt that we are right about. We act on these things on a daily basis. That’s because it feels great to know we are right. And yet, we intellectually know there are few things in life we can truly be certain about.</p>	<p>So when we get a student who meets all the class deadlines, whose work is neat, and who is respectful and seemingly engaged in lessons, we are certain they are a strong student and will be one of our highest performers. We treat them as such, and when deciding who to meet with during work time, we don’t choose them because they seem to be doing well. However, when the first high-stakes assignment is due, we realize we were wrong. The student is dutiful, but their knowledge of the unit topic is shallow at best, confused at worst. This is not a matter of giving all students the benefit of the doubt and assuming greatness until proven otherwise. This is a situation where we zeroed in on this student and were sure they were one of the strongest students. So sure were we that we didn’t even really study our own initial evaluations.</p>

Figure I-1 Origin of Errors in School

Schulz’s categories of origin of error allow us that necessary distance to recognize how things might have gone otherwise. When we’re more aware, we can disrupt some of our brains’ mistake-making inclinations. When I ask teachers and students to reflect on this, I start with a video. (It’s one you might have seen before with an important twist in the plot line.) I reference this video a lot because the ending surprises students (and grown-ups), even though there are clues all along.

It’s called *Snack Attack* (2015).

After the video, most of the students share their requisite shock. I gather them close in a sort of conspiratorial way—indicating I’m about to tell something important and rare.

“I want to let you know something really important,” I say. “Something I never knew when I was your age and wish I did.

“I think you have heard the adage, ‘Everyone makes mistakes.’” Students usually nod. “But what you might not have heard is that there are some predictable reasons why we make these mistakes. Most if not all of us made a small, low-stakes mistake just now while watching that video. But we might not all know why. Knowing why we make mistakes can help us make fewer mistakes and ensure that when we do make mistakes they’ll be more of the more useful variety.”

I display a chart with the types of mistakes. Depending on the age of the students, I might share Schulz’s language. If they are younger, I might use something similar to Figure I-2.

Reasons We Make Mistakes

- We think we're right.
- We are focused on the wrong things.
- We think we know something we do not.
- We believe something wrong.
- Our senses are wrong.
- Our community expects us to take certain actions.
- We look to the wrong evidence.

Figure I-2 Reasons We Make Mistakes

“Watching that video, I think all of us probably could point to one, if not more than one, thing we did that created the opportunity for us to make our mistake and not see what was really happening with the cookies. Like, I was *making assumptions* about the kid with the headphones, so I didn't even think twice about any other possible explanation. Or, maybe you felt like the whole class was in on the joke of how angry the woman was getting and how much the teenager didn't seem to care and were enjoying laughing together (*community*). Or, maybe you were gathering *evidence* that you thought was pointing to his guilt, like how he ate the cookies and wiped the crumbs off her lap. But that same evidence was actually showing how kind he was.

“I find it interesting to study any inaccurate assumptions I made and to reflect on whether those are some of my regular mistake-making habits. Like, do I tend to focus on the wrong things a lot? When I tend to go with the crowd or community, do I tend to make mistakes? Or, am I so in love with being right, that even though I could be wrong, I still make choices that lead to mistakes?” I use first person here because, before I ask them to think about themselves, I want them to see that making mistakes is shared by us all, adults and kids.

“I'd like you to think about a personal mistake you made recently. I know that's hard because often we don't even realize when we made a mistake. So it might have to be one that ended badly—that you know for a fact it was a mistake. It doesn't have to be big or terrible. Just a mistake. Now, with a partner, talk over that mistake and see if you can

tease out what the cause was. If you have a few more minutes, think about another time you made a different mistake for similar reasons. And remember, the point of the conversation isn't to judge each other for our mistakes but to support each other in thinking about them."

After the students talk, I might then take that lesson to whatever subject area they are working on at the moment. If I were teaching a lesson in mathematics, I might ask the students to go through past problems they worked on and find out if the origins of their mistakes are ever repeated. Perhaps they kept using an algorithm they thought was right for a problem, but was actually a mismatch (*misunderstanding/misconception*). Or maybe they rushed through their calculations, but because they're only focused on the steps to the problem, they don't think to double check their calculations (*focus*).

No matter the discipline, if students are learning within their zone of proximal development, they should have at least a handful of recent errors—enough to help them identify a pattern that will allow them to study whether or not their errors tend to stem from a certain origin. The most important work this activity does is set up the larger idea that mistake-making is part of what the human brain does. Mistakes are, in and of themselves, not the problem. The shame we attach to mistakes and unwillingness to grow from them is.

Freedom to Make Mistakes Means Freedom to Grow

As I said earlier, some of the research around mistake-making might surprise you. Here's one example: a study out of the University of Texas Medical Branch at Galveston (UTMB Newsroom 2012) found that when high school sophomores who played video games were pitted against surgical residents in a surgical simulation, the gamers did better than the surgical residents. What?! I was skeptical but through further reading I discovered that this study had been replicated in a few different ways over the years. The studies go on to show that not only do video gamers do better with surgical simulations, but actual surgeons, if they played video games at least three hours per week, performed surgeries with 37 percent fewer errors than other surgeons. Additionally, and perhaps the most surprising to me, was that if surgeons played select video games just prior to surgery, they performed faster and with fewer errors (Rosser et al. 2007).

There are of course several different reasons this might be the case, the most obvious among them, of course, is that video game players would have great eye-hand coordination and reaction time due to the nature of playing fast-paced games.

But, as we look more closely, we also see that regular video game players are more likely to be flexible thinkers and better able to deal with stress (Gee 2007; Gray 2012), which I interpret to mean that people who play video games not only get repeated access to opportunities to make mistakes, but due to the immediate nature of video game feedback, get an opportunity to study those mistakes and immediately learn from them.

I admit that this feels counterintuitive; after all, when we think of surgeons, we talk about surgical precision. We think of being error-free. Nobody wants a neurosurgeon who has a .165 batting average. We want someone with a 1.000. But what if the thing that makes that possible is exactly the opposite? In other words, it is entirely possible that what makes a surgeon capable of exacting perfection is lots and lots of opportunities to make mistakes. Frequently and recently. That's where video games come in. They create mortality-free opportunities to get regular and frequent opportunities to take chances and make mistakes.

How many of us have felt that students are disengaged because they play too many video games? Could it be instead that video games are fun and cognitively and emotionally rewarding in a way that school often isn't? With video games, players get plenty of opportunities to take simulated risks and make mistakes with low or no consequences, what growth mindset expert and cofounder of Growth Mindset Works (with Carol Dweck) Eduardo Briceño (2016) would call the *Learning Zone*. He differentiates the learning zone from the *Performance Zone*. The performance zone where we apply our skills and try to do the best work we can to show what we are capable of. The learning zone is where we practice, experiment, take risks, and expect to make low-risk mistakes on our way to learning. Video games live firmly in this world of low-stake risk and skills learned by repeated practice. They are in a realm that is in sharp contrast to the assignment-grading treadmill many students experience in school, where we put them in a position similar to surgeons, where they are expected to learn through high-cost errors, what Briceño would call the performance zone.

The idea of mistake-making when it comes to surgeons is horrifying. None of us want to be on the table under the scalpel of a surgeon who is taking risks and knows the chances are good they'll make a mistake. Which is precisely why I'm using this example. Because for all of our desire to steer clear of mistake-making surgeons, we also know that mistakes are necessary for surgical training. Even though so many of our best medical developments happened after a mistake was made, most of us would still rather avoid being the recipient of said mistakes. And yet, without mistakes we'd be missing quite a bit. What writer Barney Saltzberg (2010) calls "the beautiful oops" has led, throughout human history, to some pretty essential learning. Let's stick with the medical example for a minute and look at how mistakes and a certain mindset about mistake-making resulted in some life-saving discoveries. See Figure I-3.

Mistake that led to . . .	This medical innovation
<p>The story goes that Alexander Fleming was studying staph infections and feeling salty because one of his lab assistants had been moved to another lab. So he left his dirty petri dishes in the sink and went on vacation. While he was gone, a penicillium mold spore somehow flew in through a window or from somewhere and landed in one of his staph petri dishes. When he came back, the petri dishes that had been accidentally exposed to penicillium were clean and the staph infection gone.</p>	<p>Penicillin for treatment of infectious diseases</p>
<p>Karl Paul Link was studying why cows were bleeding and discovered their spoiled clover feed was part of the problem. Mark Strahmann then narrowed down which element of their spoiled clover feed caused that bleeding and then isolated that element. It was then marketed as rat poison. However, when a Navy recruit attempted suicide with the new rat poison and survived, it was discovered it could be used for humans as a blood thinner.</p>	<p>Warfarin—which started the use of oral anticoagulants—or blood thinners, which are used to help reduce the risk of blood clotting and help treat certain types of heart diseases</p>
<p>F. Mason Sones, a cardiologist, was using dye to check the valves and chambers of a patient when the catheter he was using slipped and he accidentally injected dye into the patient's coronary artery. The doctor thought he had killed the patient, only to discover the patient was fine and, because he could now also see the patient's coronary artery, he realized he had discovered a new way of cardiac imaging and surgery.</p>	<p>Coronary angiogram</p>
<p>Wilson Greatbatch was working on an oscillator that could record heartbeats. He put in a wrong part, but soon realized that the mechanism was pulsing, like a heart.</p>	<p>The pacemaker—which stimulates the heart muscle to create a regular heartbeat</p>

Figure I-3 The Opportunity to Make and Learn from Mistakes

Although it's true that much of the time teachers are not dealing with life-and-death mistake-making, we are often charged with responsibilities that will have a direct impact on the types of lives our students will live. If our students do not learn to read, it will be difficult if not impossible for them to get a decent salaried job when they leave school. If our students do not learn critical thinking skills and cannot spot untrue or biased information, they might make misinformed health decisions such as choosing not to vaccinate their children or have their vote swayed by online propaganda. If our students do not feel like school is reflective or welcoming to their identities and backgrounds, they might decide education is not for them altogether and underperform or drop out. The list of ways school has a direct and lasting impact on people's lives is never-ending. And that can feel like an impossible level of pressure. We might be tempted to hand over all our decision-making to a packaged program or curriculum or something we purchased from another teacher online or perhaps even a social media site. We might be tempted to just do exactly what we have done for the last five, ten, thirty years, even if we know there is undoubtedly more current and successful approaches to try. Many of us walk into our classrooms virtually frozen from concern of making mistakes.

This not only reduces our ability to be responsive to our current students' needs and to innovate, it also models something quite dangerous to our students—that safe and possibly irrelevant work is better than risky, relevant (and likely messy) work. Certainly that's an argument for why we need to create more space for creative failure in our classrooms. Let's look at a different video game example to see what we can pull from that to do so.

My family has a Nintendo Switch. Recently I was playing a Mario game for *way* too long. I knew it was too long. I had laundry to do. Lessons to plan. But I just kept playing this one level, dying and then starting over and over again. Usually when I tell students this story they nod and laugh. As I kept playing the game while my work piled up, I realized that what was making me keep playing this game was not that I was doing so well, it was that *I kept making mistakes*. Some of the mistakes were the same, but a lot of them were new each time I played.

Mistakes are part of what makes video games fun, but somehow in life, if I was making as many mistakes as I was making on that one level of Mario, I would have quit whatever I was doing. It was the mistakes that kept me going—the feeling that if I just did it right this time, I would be successful. I have noticed something interesting about myself and other video game players, or at least interesting to me: when a level is mastered quickly, it is very easy to turn off the game. Play just a few rounds and let it go. But, when the player is close to accomplishing something but then makes a mistake, it can feel almost impossible to stop.

That feeling of being so close to mastering something, of seeing that I had *almost* nailed it, that incredible impetus that propelled me forward, to want to keep pushing, is exactly

what educators long to see more of in our classrooms. That sort of good-natured, but very much determined, acceptance of errors as a welcome and expected part of learning would help propel all of students' learning, no matter what discipline we teach, to the next level. We'll explore ways of making that happen in this book, but for this work to be honest and responsible, I want to keep honoring how difficult mistake-making can feel for teachers right now.

Mistake-Making as a Mindful Practice

Recently I was fortunate to have a conversation with Mitchel Resnick, creator of Scratch, MIT professor, and author of *Lifelong Kindergarten* (2017), about mistakes and creativity. As part of our conference day for teachers at Teachers College Reading and Writing Project, we, along with another colleague of mine, Sara Berg, were planning to ask teachers to take part in a makerspace. I raised the concern that when I'd run makerspaces in the past with educators, I saw a fair amount of hesitation before they were willing to jump in and play with the materials. We discussed how often this was out of fear of screwing things up.

Resnick (2017) talked about a Creative Learning Spiral as a way of exploring the process of creativity (see Figure I-4). He discussed the ways in which play, or tinkering, and reflection were key aspects of that process. And how often he found the older we are, the more hesitant we can be at tinkering. He talked about how the fear we have of making mistakes can be a huge hinderance because mistake-making is a crucial part of the creative process. And this process doesn't just help us in terms of the projects we are working on at the moment. The habit of mistake-making and reflection are habits that serve us well in all aspects of our lives. As Resnick writes in *Lifelong Kindergarten*, "There's a tradition among programmers to see mistakes not as a sign of failure but as 'bugs' that can be fixed. An important part of becoming a programmer is to learn strategies

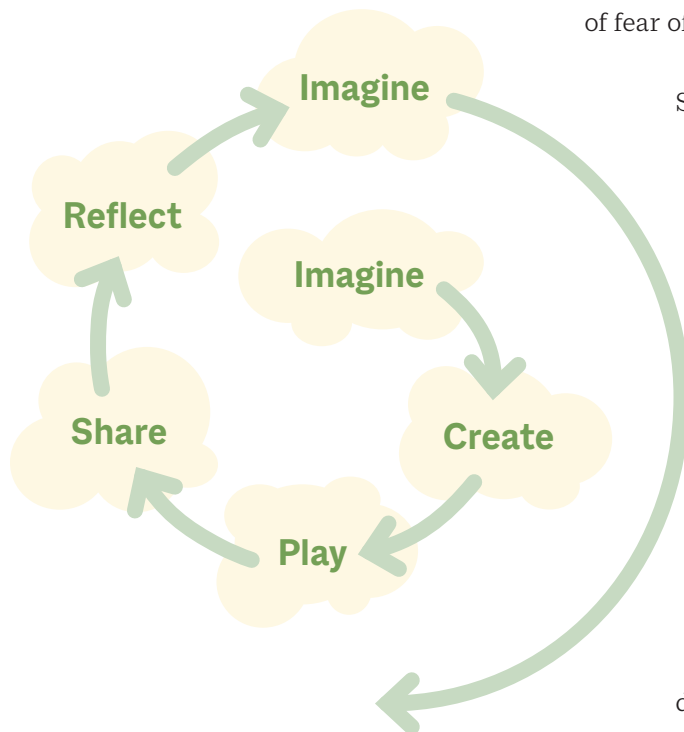


Figure I-4 Creative Learning Spiral

for debugging—that is, how to identify and isolate a problem, then make changes to get around the problem.” In other words, by actively expecting and responding to mistakes we are also honing and practicing important skills and strategies that might not be developed or practiced any other way.

When I think about preparing for positive risk-taking that will embrace certain types of mistake-making, something I explored in *Unstoppable Writing Teacher* (2015) comes to mind—research suggests that pessimists are often happier and healthier than optimists, an idea that often comes as a shock to people. Research also suggests that optimists are happier and healthier, but this is less shocking to most. The healthy pessimist does surprise because people see pessimists as gloomy and under a rain cloud. But really, pessimism is less about feeling worried all the time and more about preparation for difficulty—because we anticipate trouble. When we go into the world, we expect trouble and we plan for it. I think this extends into and includes mistake-making, whether or not you identify as a pessimist. If I am about to take a risk as an educator, or encourage my students to take a risk, it feels important to anticipate trouble. What might get in the way of success? What kinds of mistakes can I anticipate I might make?

A few years ago, Lucy Calkins, the founding director of the Teachers College Reading and Writing Project, gave a talk about trouble. She said something that I have been turning in my mind ever since: “We are all made up of a mix of achievements and failures. But our achievements, even the ones we are most proud of, are sort of generic. They can be anyone’s achievements. Our achievements are not what make us unique. Our failures, on the other hand, are. Our mistakes and what we learned and what we became because of them are uniquely us. They make us who we are. We are nothing without our failures.”

I wrote this book because I want to harness the perseverance humans have when we are playing video games—when we welcome mistakes and are driven by them, in our schools and in classrooms. I want us to learn to see our mistakes as unique and telling about who we are as our DNA. In equal measure, I want us to get better at minimizing unnecessary mistakes that can cause real harm and setbacks to the learning process. Throughout the book I will point to research outside of education, in fields as varied as medicine, video game play, social work, architecture, and even the FDA. Yes, looking at research around learning and teaching is crucial, but I believe, in order to have a deep understanding of the role of risks, mistakes and responses, we also need to look outside our own field. In other words, as much as a firefighter’s whole job is to take a risk and run toward the fire, they also value risk reduction as a means to allow themselves to continue to take more risks, I believe educators can do and teach in the same way. It’s a balance I believe we can achieve. We recognize the risk and take it when we know the outcomes for ourselves and for our students are worth it.

Choose Your Own Adventure: A Note About Using This Book

I've called these essays rather than chapters because I really intend this to be a choose your own adventure kind of read. As every teacher knows, engagement makes all the difference in learning. When someone tries to control too much of your learning experience, the less the learning becomes your own. And to grow from our mistakes, we really need to bring our full attention to it. So, with that in mind, I wrote this book as a collection of essays that can be read out of order and in isolation. What kind of mistakes do you want to pay attention to right now? You decide.

MISTAKES COST MORE FOR SOME

ESSAY 1

According to Yudhijit Bhattacharjee (2017), we lie to achieve goals. Thirty-six percent of our lies stem from a desire to protect ourselves, and 44 percent of our lies are to promote ourselves. Compare that to the harsh reality that only 7 percent of our lies are to be polite or altruistic. As early as age four we begin to lie to avoid punishment (Bronson 2008). We know that one of the hardest times for us to stay honest is when we feel like someone is blaming or accusing us. It's the reason that, when we witness a kid punch another kid, we shouldn't ask, "Did you just punch him?" Because even though they know they were caught in action, the instinctive human response when we are asked to admit guilt is to deny it. It shouldn't be surprising that for so many of us, when observed making a mistake by another, we are defensive. We immediately look to protect ourselves. So, when the kid responds with "No, I didn't" and we say, "But I saw you do it!," their next self-protective move is to emphasize intent over impact: "They punched me first."

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FAIL.
RISE.

Publicly owning up to our mistakes involves fighting against our own instincts. I think it can be even harder for teachers to do than for the general population. After all, the teacher is supposed to be the expert. It feels daunting to imagine how students, families, administrators, and colleagues might respond to us admitting our mistakes. There could be a lack of respect or lack of trust in our abilities. However, if we are serious about the notion that one of the most important ways for people to learn is to take risks, we need to do more than pay mistake ownership lip service. We need to publicly practice it. Let's consider a recent example of what that looks like.

On a spring evening in 2019 at a Major League Baseball game in Houston, Albert Almora, a player for the Chicago Cubs, hit a foul ball. It went flying into the stands and crashed into a young girl's head. She was whisked away, tears streaming down her face, injured. She ended up being fine, but Almora was clearly shaken. He fell to his knees and cried. A security guard and teammates comforted him. Hitting a foul ball into the stands is an innocent and fairly common occurrence. Statistics (NBC News Chicago 2019) show that there are roughly fifty foul balls hit on average at Major League Baseball games. No one thought Almora intended to hit the little girl.

But that was not what was troubling Albert.

He didn't go into the defensive mode that so many of us go into when we make mistakes. He didn't explain how he "didn't mean to" or proclaim how it was somehow the little girl and her family's fault. Instead, the cameras, and later witness accounts, showed he went directly into regret and concern. He focused only on the impact. In an interview following the incident, Almora said, "As soon as I hit it, the first person I locked eyes on was her. God willing, I'll be able to have a relationship with this little girl for the rest of my life. But, um, just prayers right now. That's all I really can control. I'm speechless. I'm at a loss for words. Being the father of two boys, I want to put a net around the whole stadium. Ah, man. I don't know. I'm sorry."

Almora knew that taking responsibility for the impact of a mistake, especially when the victim is not the mistake-maker themselves, is what matters most. There was no reason to beat himself up for it. However, there were plenty of reasons to wish the outcome had been different. This desire—knowing that mistakes happen but also wishing for an outcome that didn't have victims—is something many educators can relate to.

Not All Mistakes Are Equal

When we talk about the high-risk mistakes or the mistakes that have more impact for those on the mistake's receiving end, we still need to hold onto the awareness that there is such a thing as "good" mistakes. Our fear of negative impact can't keep us frozen and

passive. Instead, it's about maintaining awareness so that we avoid as much negative impact as possible and that we take responsibility when the unavoidable negative impact happens. Mistakes are necessary on our path to learning. Knowing that there are different types might feel like semantics, but I believe that knowledge helps reduce negative errors and increase and welcome the positive errors.

Just like botanists learn how to identify flora and fauna, astronomers learn how to identify celestial bodies, and grammarians learn how to identify parts of speech, folks who study mistakes can develop a type of expertise when we start to consider ways to identify mistakes. This is because, like all things we study, it is easier to engage in a focused inquiry when we have names for things. We can identify patterns, notice challenges, consider alternatives only when we can articulate what we are specifically discussing. Naming is powerful.

With naming also comes the ability to categorize, rank, and value. Eduardo Briceño (2015b) gives us useful categories for four types of mistakes. Two types are more negative and two types are more positive. See Figure 1-1.

- **Stretch mistakes:** These are the types of positive mistakes most teachers and grown-ups like to talk about. These are the mistakes we make when we're trying something hard. Like a new algorithm, a logic strategy, or a complicated pipette technique. We're moving out of our comfort zone; because we're trying something new, we don't exactly get it right the first time. These are the mistakes the motivational posters are about.
- **Aha moment mistakes:** These are positive mistakes we make when we don't have all the information, so we think we're doing the right thing, until it becomes really clear it is not the right thing. One typical example is just how similar sugar and salt look when you mix them up while baking. In the classroom, these can happen the first time we try to teach a new grade or lesson. We lean on what we have in our curriculum guides or what our colleagues tell us. But as we move through that first lesson on quadrilaterals, we realize that the prerequisite teaching on angles and congruence hasn't happened. Or at least the students haven't retained it. Aha moment mistakes are also a type that give us a big learning experience. But unlike stretch mistakes, where we don't yet have the mastery of something, our mistakes allow us to see our areas of ignorance.
- **Sloppy mistakes:** These are the minor villains in the mistake world, the ones we like to catch other people making and hate to be caught doing ourselves. These are the mistakes we make when we're doing something we should know how to do, but we lose concentration or take something for granted and make a silly mistake that we really should not have made. We rush heading out the door

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Figure 1-1 Types of Mistakes and Learning Opportunities

and leave our coffee on the counter. We give our students a long and elaborate lecture about personal responsibility and the importance of meeting academic demands after most of them failed to meet a key deadline, only to realize halfway through the lecture we are talking to the wrong class. Annoying. Low stakes. Easy to take ownership of.

- **High-stakes mistakes:** These are mistakes we really don't want to make. When the stakes are high, these types of mistakes can be life changing, or even cause physical harm. For example, when a parent asks us if we think they should have their child evaluated for possible services and we reflexively say no, but we

almost instantly regret that response because we know the student is struggling too much with the content and suspect that there might be a learning disability. Yes, we can learn from these high-stakes mistakes, too, but these are also the mistakes we want to try to avoid making when we can. When we're in a high-stakes situation we want to do as much as possible to avoid mistakes. Education, like medicine and other first responder careers, is filled with high-stakes mistake pressure. We live each day knowing that our choices can make or break a child's ability to learn to read, reason, or reach their academic, career, or personal goals.

Knowing more about kinds of mistakes can help us to be more metacognitive about our mistakes. In the same way we learn a new digital skill or vocabulary word and then begin to see it everywhere, we will find ourselves more and more awake to the fumbles and downright mess-ups we (and others) make on a daily basis and understand that they do not all neatly fit into the same category. We can go into any learning situation expecting those stretch mistakes. We can identify situations that can result in high-stakes mistakes and do prep work to mitigate as much as possible the fallout from those types of mistakes.

Acknowledging Our Mistakes' Impacts on Students

A regular discussion in antiracist, equity-focused, social justice circles is about the tendency for those in power to own up to mistakes, only to quickly connect that mistake to intention (e.g., "I didn't intend to . . ."). This is such a big trope that even in some misguided trainings that deal with issues of race, class, ethnicity, gender, or other identities that are frequently marginalized, part of the protocols at the beginning for setting up conversational norms frequently includes the line, "Assume good intentions." And although it has the effect of making it less risky for the mistake-maker to apologize and still save face, it also has the effect of simultaneously allowing the mistake-maker to refuse to acknowledge harm done while chipping away at the victim's righteous indignation, and likely undermining the work being done.

So many of us do things that, while not at first glance harmful, have good intentions for people other than students. For example, who among us has not done something purely because we feel the need to be in compliance to some district or administrative dictate? We are doing _____ minutes of _____ because someone ordered us to, and not doing the _____ minutes of _____ that our students need. We make all the students use a particular form of note-taking because someone at the district office ordered it, while knowing full well this is going to not work as well for every kid. Or, another common choice we

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educators make is to take actions to keep students “under control” whether in the moment or systemically so that we get good evaluations. I have witnessed students being snapped at or having recess or electives taken away because of behavior that normally would be dealt with more instructionally, simply because a supervisor was in the room. The intent in those moments is to please the administration, not to do what’s good for kids. And although this is completely understandable, it is also important to consider what our intent really is in those moments.

It should go without saying that if you are reading this book, your intent is good. And you are not going to make mistakes that intentionally hurt people. And your students very likely know your intent is good. And, yes, on occasion you *might* need to clarify that your intentions were on the right side of things. However, ideally, we all first check in with ourselves before doing so to make sure that we’re not prioritizing our desire to feel good about ourselves over harm done to others. As Almora’s example reminds us, making excuses or stating intentions does very little for the person wronged or the witness to the mistake. Our students and their families are most adversely impacted from our errors, intentional or not. As the maker of the mistake, the onus is on us to focus and acknowledge the impact. Sometimes the impact is small—“Oops, I spilled some water on your desk—let me wipe that up” and there’s no need to declare “I didn’t mean to spill water!” Sometimes the impact is big—mispronouncing a student’s name for so long that other students are starting to joke about it. Our intention was not to marginalize this student or make them feel less valuable. But declaring our intention is not what the student needs. Instead, we should consider discussing the impact of our mistake, even if we’re not entirely sure, but especially if we know. For example, we choose to say, “By mispronouncing your name for so long, and not taking the time to learn to pronounce it correctly, I might have sent the message that your name was somehow less important than other names. I also have noticed that some students have started to say it the way I have and I can only imagine how that makes you feel.” Acknowledging impact helps everyone move forward (see Figure 1-2).

Bluntly acknowledging error might feel awkward, like you’re fighting against your instincts. But it accomplishes important things. First, it takes care of anyone who might have been impacted by your mistake. Second, it models ownership of impact. This is of course important because students need to see lots of models of people taking ownership of their actions and their impact. We want them to take on those behaviors, but we also want them to trust us. When we own impact, we communicate that their relationship with us is about caring and respect. We will hold ourselves accountable to the relationship. When a person with authority does this, we communicate their value: that they have individual power and are deserving of respect. They have the right to expect people to take responsibility for the mistakes that have affected them. Particularly, but not only, mistakes made by those in power. Purposefully or not, by not acknowledging our errors we make with

Mistake Scenario	Language to Acknowledge Impact
<p>You receive an email from a family that their child has reported you don't like them based on a recent class incident, and they would like to discuss this with you. You know you have been having trouble connecting with this student but thought your feelings weren't obvious.</p>	<p>"I am so glad you emailed to share your concern. If that's how <student's name> feels, then clearly there's work I need to do. It's important to me that I have a positive relationship with every child in my class. I'll bring greater attention to this and, in addition, I'd love to set up a time to talk with you about <child's name> so that I can get to know them better. Please let me know a few times that might work for you."</p>
<p>A bunch of boxes of supplies arrive in the main office. You are asked to send students down to get them. You ask for volunteers. After you are done choosing, a student points out you only chose boys.</p>	<p>"Ugh. Yes, you are absolutely right. I can't believe I did that but I did. Thanks for pointing that out. It's a reminder of how we can make mistakes that unconsciously reinforce bias. I have to be more careful that my actions match my beliefs. So glad that you all are thinking about these things and that you were willing to speak up! As a community, one of our responsibilities is to hold each other accountable and I'm not above that."</p>
<p>You do a robotics lesson. Because the robots are part of a commercial kit, you didn't double-check what was in the kit. As the students get to work, they realize there are missing parts. Students who have missing parts aren't able to build their own robot and must work with a partner. They loudly grouse.</p>	<p>"Wow. You know what I failed to do that scientists should always do? Check to see that all my materials were ready before I started working. You all can learn from my mistake. When we're doing an experiment or putting something together, our first step is to make sure we have all the materials. I should have done that, and I was wrong. I'm sorry."</p>

Figure 1-2 Acknowledging Impact

students, we are reinforcing the idea that students are somehow less worthy than us. That we don't need to explain ourselves to them. When we own up to our missteps, we are showing our staunch belief in their worthiness. Additionally, when students see that we are actively learning and growing in front of them, they can really believe that we mean it when we invite them to make mistakes and learn from them in the classroom. When we

talk about directly teaching students lessons about mistakes, we discuss the ways we can teach impact and intent directly to students. But that work will go a whole lot better if the students have seen it modeled for them before by us.

THE CONSEQUENCES OUR STUDENTS AND FAMILIES FACE VARY WIDELY

Of course, impact is not going to be the same for every person; equity and equality are not the same. Although it can be difficult for us to acknowledge the amount of power we have in our students' lives, it is true that for many students and their families, teachers are some of the people who wield the greatest power. And the greater the power, the greater the impact of our actions—both good and bad. This awareness matters because the more power we have, the more insulated we can be from the cost of our mistakes.

Think about a fairly regular mistake people make all the time, one that you might have even made today—you get distracted and blow through a stop sign. If a police officer pulls you over, what happens next likely has a direct connection to your skin color, gender presentation, amount of money in your bank account, previous arrest record, who else is in the car with you, age, detectable disability, immigration status, donations to particular organizations or affiliations known by stickers on your vehicle, and more. Depending on your identity, this traffic stop can range in impact from a minor interruption in your day to a life-altering event. Scroll through the news on your phone. Flip through the twenty-four-hour news channels. Notice the protests in the streets. I doubt any of us would say that although everyone makes mistakes, everyone pays for them equally. The consequences for mistakes are largely determined by how marginalized or privileged our identities are in society.

It's not just that our mistakes affect us differently because of where *we* stand in the world but also that our mistakes affect students differently because of *their* identities. This is true not just during traffic stops. The cost of a mistake—any mistake—is either enlarged or reduced by your identity and the identity of those responding or reacting to the mistake. Mistakes cost more for some and less for others—even when the mistake is exactly the same.

APOLOGIES NEED TO BE EQUITY MINDED

If equality is everyone getting the same and equity is getting what is needed, we must remember that that definition of equity applies to everything, including our own responses to mistakes we made. If I am feeling anger toward my administrator or my class when I'm entering report card grades and I grade much more harshly than usual, only to realize later that it was a mistake to not calm myself down before grading, the impact of those grades will not be the same for everyone. Certainly the student whose parents don't put much stock in grades is not nearly as affected as the student whose mom punishes for poor grades or the student whose ability to play on the soccer team is contingent on grade point

average. When we own our impact, we need to see each person we harmed as an individual with individual harm done, and we cannot expect that our blanket acknowledgment or apology will do the same work for everyone.

And, since we are modeling for our students how to acknowledge impact, we have to proceed with caution on this one. Although our response should be sincere and public enough that students understand we are owning our impact, it should not come at the cost of making the most impacted student an example for others to learn from. We do not want to share information about our students that could be personal or make them feel vulnerable. We all know the extreme discomfort of being the unwanted focus of attention as a student. For some students, that experience results in real trauma that disengages them from school. One teacher I spoke with recalled stepping in to defuse an altercation in the hallway. One student responded by saying something sexually explicit to her. She completely lost her temper, in a way that she knew was wrong at the time. Later, because she knew everyone was talking about the incident, she wanted to apologize publicly to the student because she knew there was a lot of shame and a power dynamic in play. But fortunately she thought to ask the student first. He didn't want a public apology at all, so she apologized privately. We should be clear when discussing our mistakes publicly that our fumble was one that did not affect everyone equally. I might choose to pull students aside who were more likely to have paid a higher cost, but probably better still would be to also leave the door open for students who would like to speak with me about themselves or others who could have been impacted by my mistakes. "Hey, everyone. I know I messed this up," we might say. "If anyone wants to discuss this with me privately, or send me a note, please know I welcome hearing more from you. I'm going to be reflecting on this on my own, but I'd be glad to hear your thoughts." That said, there are no hard-and-fast rules about the best way to apologize without causing greater harm.

An undercurrent of all our teaching must be to show through our actions and words that although mistakes happen, the mistake-maker must never lose sight of impact.

Where We Are in the Power Hierarchy Matters

But sometimes we do lose sight of the impact. Sometimes we feel so bad about making a mistake that we can't sit with the discomfort and instead turn the responsibility over to the victim. A classic example, one that I have been a perpetrator, victim, and witness of, is when kids get unruly. The educator is trying to get something done (attendance, teach a lesson, pass something out, and so on). The educator loses their temper and yells. The students flinch. The educator says, "See what happened? You were out of control and I had no choice but to yell!"

In our calmer moments we could likely trace the mistake back to what happened even before the big blowup to smaller errors. Perhaps we didn't give the students enough direction before we got distracted. Perhaps we didn't explain how important the students' quiet was to the task at hand. Perhaps we gave no purpose to their current work. If we had done that, the chances are the students wouldn't have become unruly. So, even if we wanted to pin the mistake on the students, we would need to acknowledge we still had a certain level of ownership of the events leading up to it.

Sometimes when I make a mistake I am not ready to own up to, I ask myself to consider what happened before. What might I have done, not two minutes before but perhaps hours, days, or weeks ago that might have led to this mistake? A fifth-grade teacher shared with me her recent frustration with the families of her students. They regularly sent her little text messages, emails, and notes that were more than informational or important questions. They shared personal details about their lives that made her feel uncomfortable and asked questions late in the evening about things they could probably have figured out themselves. Worse, they got salty and made passive-aggressive remarks if she didn't respond to them. As she talked it through, at first she thought it was because this batch of families had little respect for her. But, as she started comparing notes to other colleagues in her building, she realized that perhaps, at the beginning of the year in an effort to be friendly and inviting, she had done a lot to break down healthy boundaries. "As I was complaining to a friend, I started telling the story of back-to-school night and realized that they were actually pretty quiet. It made me nervous, like I thought maybe they didn't like me. So I started reiterating how important I thought it was for them to feel like they could contact me at any time for *anything* and I would get back to them within twenty-four hours. And I didn't just mention that once. I mentioned it a lot and even said it again in my newsletter and anytime I saw them at drop-offs or pickups. And when they started to send me these notes, I responded right away because I was so concerned about not appearing cold and wanting them to like me." Her face turned red. Yes, the families were becoming overwhelming in their demands, but it hadn't come from nowhere.

MISUSING OUR POWER BY SHAMING STUDENTS

In one of my most regrettable mistakes in the classroom, one of my students, we'll call him Larry, had been identified by his parents as gifted. We didn't have a gifted and talented program in our school. Whether you agree with the concept of gifted and talented as a category, Larry's self-perception as such is important to this story. The year Larry was in my class, I taught in a collaborative model where there were two teachers with thirty-two students. Roughly 40 percent of the students had individualized education programs. They had a wide range of strengths and needs. I don't remember how it started, but one of the students who received support with decoding read aloud a message to himself. One of

the words on the message was *does*, but he read it as *dews*. Without missing a beat, Larry guffawed loudly and pointed at the student who misread the word. “Oh my God! You just read *does* wrong. *Does*? I mean, what are you, retarded?” he yelled.

In a flash I was screeching at Larry to get out of the class, “Meet me in the hallway! We do not call people slurs in this classroom! We especially do not humiliate people when they make mistakes!” As soon as we got into the hall I really laid into Larry. I’m sure the whole class could hear me. My teaching partner stepped out to check on us. When she saw that it was OK to jump in, she bent down to his level and said calmly, “Do you understand why Colleen is so upset right now?”

He nodded. Tears in his eyes. And all at once I saw my mistake. In my effort to protect one student from shame, I had self-righteously shamed another. I took a deep breath and my rage and protectiveness melted away. I realized I needed to try to make this right. We returned to the classroom. I first checked in on the student who had been made fun of. And then I apologized. I acknowledged that what Larry had done was wrong, and it was never going to be an OK thing to do. However, I also explained that my response was terrible, and had possibly made things worse.

One of the biggest challenges in owning one’s mistakes as an educator, or as a parent, or as a caregiver, is when a student does something that is worthy of response, and our own response is outsized or just plain wrong. This is difficult because mistake owning is always hard, but also because we often teach in cultures where power dynamics and discipline philosophies are not always the healthiest for kids. We might teach in schools that very much operate under the “seen and not heard” philosophy. We might teach in schools that view one kind of student behavior and work ethic as the right one. We might teach in schools where quiet and submissive classroom management is the only one that is valued so students who need more movement and music and sound are gravely at risk of never learning in a school environment that values their person. Sometimes we risk ceding some of our power to a student who challenges us; sometimes we are at risk of losing the esteem of our colleagues. It can take some serious introspection and humility to take the step of owning a mistake publicly. And yet, we are also likely familiar with the Quaker saying, “Speak truth to power” (American Friends Service Committee 1955). We know that when our students see or hear us share stories of speaking up for them instead of complying, especially after we make a mistake that impacted them, they learn valuable lessons about the importance of both examining intent and mitigating impact. They also learn to consider the ways one can speak truth to power, with the power of doing right supporting you. This sort of move, although possibly frightening to contemplate, is the sort of modeling that can allow our students to see the possibilities for themselves speaking their own truths and the truths of others to power. Including, which we should brace for, speaking hard truths to us.

TRACING THE PATH OF OUR MISTAKES WITH TIMELINES

This is helpful reflection work to do in any aspect of our lives, but it is especially important to do when we make mistakes from a position of power. It is fairly easy for people in power to “punch down” even though we know from our schoolyard days we should always pick on someone our own size. However, how often have I heard of schools chastising children for coming to school without something that was completely outside their control (lunch, pencils, permission slip money, a good night’s sleep)? How often have we seen letters from schools and school districts go viral that explain things the school is not responsible for (dress code, manners, a work ethic)? Although it is easy to feel as if schools are powerless and families and kids have all the power, for many of our students and families, this is not the case. Schools have a tremendous amount of power, both actual and symbolic. When schools shift the blame of an issue they are having with students to the students or their families, they are both evading responsibility and not owning the school’s actual position of power. See Figure 1-3.

And when our choices have effects that go beyond ourselves, we owe it to the people we are responsible for to own those choices. When this reflective work is tough to do, when I really feel like there couldn’t possibly be an inciting, preventable mistake I can point to, I find it helpful to sketch a quick timeline and trace back a bit until I hit a point where a different decision could have been made. See Figure 1-4 for two examples.

That teacher I mentioned earlier who blamed her students for her yelling at them? She could have paused, reflected on her actions, and, if she felt stuck, scribbled out a quick bulleted list of the events of the day or just spent some time thinking about it while preparing dinner that night. I have faith that most practitioners would start to connect the dots and see places where they could have made different choices that would have led to different outcomes. Then whether that day or someday soon, she could have said to her class, “You know what, the other day I blamed you for my yelling at you. I said you were out of control and deserved to be yelled at. But I should never have said that. I did some reflecting on that because it didn’t feel right to me and it’s not the kind of teacher I want to be or you deserve. Yes, you were not behaving well. But no one deserves to be yelled at. And there are things I could have done as an adult to help you to remember our class guidelines. I apologize.” Knowing that there are things I could do even before I start throwing blame fingers can not only help me learn from my mistakes but also help me make this process more visible to my students.

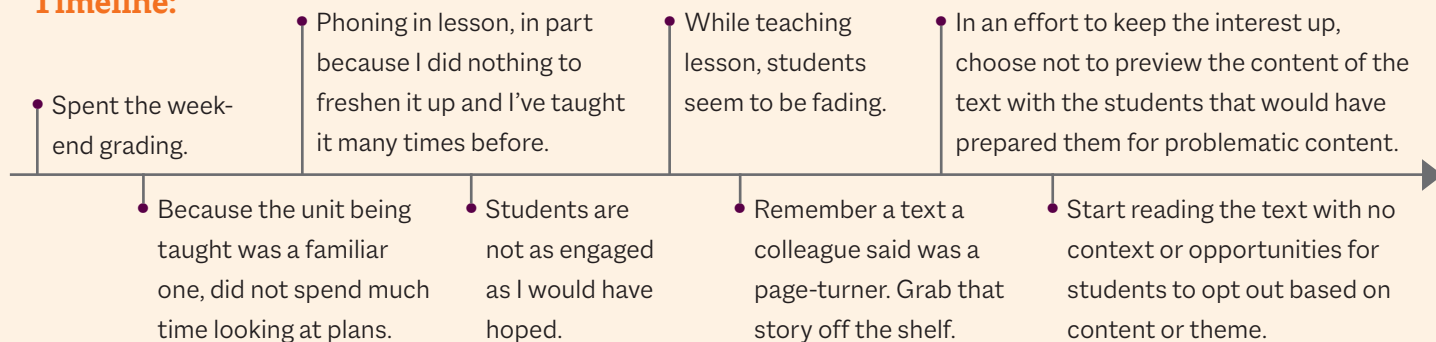
Timelines might not be the right reflection tool for every teacher, at least not at first, but spending some time at the end of each day or week writing down thoughts about what you noticed, what made you uncomfortable, what you know you want or need to do better can make a difference when studying our own mistakes. Whether it’s voice memos, short vlogs, or even a bullet journal, this act of reflecting and recording changes our practice, allowing us to avoid or remedy mistakes faster than we would without the practice of reflection.

Instead of this . . .	You might try this . . .
Taking away recess, field trips, or special events for incomplete assignments or homework	<ul style="list-style-type: none"> • Disconnect exercise, enrichment, and socializing from academic demands and treat them as separate items with separate guidelines. • Investigate student resources, family schedules. Consider whether the assignment is accessible to all students or whether there are ways it can be made more so.
Employing blocker programs or only using white pages to minimize student access to inappropriate or distracting aspects of the internet	<ul style="list-style-type: none"> • Explicitly teach students internet best practices, including what sites are appropriate for school, how everything is tracked, and legal ramifications for certain behaviors. • Actively meet with and confer with students while they are using online tools, naming and coaching into pitfalls you see.
Sending out a letter scolding families for student dress, manners, and studiousness and pointing out how these behaviors start at home	<ul style="list-style-type: none"> • Consider if students have access to the clothing required in the dress code and the means to purchase, launder, and prepare those clothes. • Explore ways to explicitly teach into the culture and habits your school values, knowing that families either might not be aware of them or might not prioritize them for good reason.
Creating tracking systems and awards and incentives for reading and punishments for not reading to increase student volume of reading, vocabulary growth, and academic achievement	<ul style="list-style-type: none"> • Study whether or not the school community is in a book desert where students have little or no access to books outside of school. • Visit the local public library to see if there are systems that might be barriers to students and their families that could be revised (documentation required for library card applications, fines, staircases at entrance, no public transportation). • Team with businesses to offer book ownership opportunities to students as well as make school library lending more accessible. • Reduce or remove imposed accountability measures, focusing instead on book clubs and conversations.

Figure 1-3 Shift from Blame to Action

Mistake: Read aloud a short text with a dramatic turn to illustrate a point. Look up and see one of the students is crying. When you investigate, you discover that the student has experienced a trauma similar to the storyline.

Timeline:



Mistake: Give students unit test where more than half fail. When you look at it closely, you realize there is an entire section of the test that asks for knowledge you haven't taught.

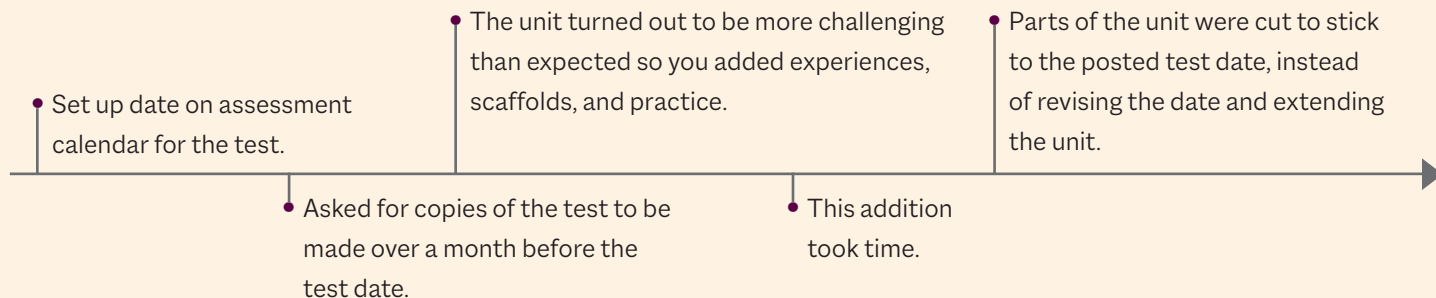


Figure 1-4 Timeline Mistake Analysis

MISTAKES LESSON

Lesson 7

TYPES OF MISTAKES

Grades: 2-12

Materials:

- Prepared blank chart that will be filled in during the lesson with the four types of mistakes either on sticky notes or written in
- A video, possibly previously viewed, such as *Snack Attack* (2015) or one that is newer to the students such as *Last Shot* (Widodo 2016)
- Students sitting with partners to talk with

Special notes:

This lesson is adapted from the work of Eduardo Briceño. To read more on his ideas about mistake types see “Mistakes Are Not All Created Equal” in Mindset Works (Briceño 2015a).

Lesson steps:

1. Begin by talking about how there are different types of mistakes. That even though we often talk about how all mistakes have something to teach us, some teach us more than others and some might not be worth the risk if we can avoid them. “If you look at this chart, you can see most mistakes fall on these axes. They go from least purposeful to most. And from least amount of learning that happens because of them to most.”

2. Discuss the following mistakes (see Figure L-3), either adding them to the chart or pointing them out as you talk:
 - a. Sloppy mistakes are mistakes that happen because we just weren't as focused as we could be, we were in a rush, or we could have handled the situation better in another way. These are pretty low-consequence mistakes, and we didn't mean to make them.
 - b. Aha moment mistakes are mistakes that we learn something by doing them that we didn't know before. This

Material suppressed due to rights restrictions

Figure L-3 Types of Mistakes

5. Play the short film, stopping immediately following the first mistake made by a character, and then again at least once more immediately following a mistake, giving students a chance to share what they noticed and the type of mistake they believe they saw.
6. *Optional:* Ask students to think of a mistake from their mistakes boxes or résumés and see if they notice a pattern.
7. Close with letting students know that we all make all of these kinds of mistakes. But, as learners, we want more of our mistakes to be in the stretch area than anywhere else. However, it can be interesting to notice patterns of types of mistakes we tend to make and when. (Like making a lot of sloppy mistakes and hardly any stretch mistakes when we're tired.)