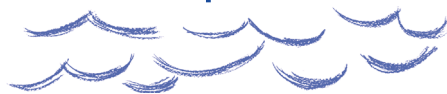


## chapter 1



# COME ON IN, THE FUTURE'S FINE

Oh, hello! Thank you for joining me on this voyage! I'm so glad to have you along as a fellow edventurer. You may be feeling a bit nervous. Have heart and ignore any nagging voices telling you this journey is foolhardy, whether they are real or in your head. Remember, we must be courageous. Others have gone before us and they have survived the crossing. Every day we're in school, it's an endeavor—today, we've simply decided to go in a different direction. You can do this.

The first step in our edventure is charting a course. This is tricky because while others have sailed ahead, we can't follow the exact same path. Your classroom is unique to you and your students. As such, so are your needs and route toward innovation. Thus, before we set sail, we need make sure we are clear on our ultimate destination. We need to understand: What is innovation, really? To aid us in finding the answer, I want to tell you a story.

### ME AND THE THREE LITTLE PIGS

We've all heard the story of the three little pigs. They each had their own way of evading the big bad wolf—one built a house out of sticks, another of straw, and one out of bricks. Spoiler alert if you're the lone soul who hasn't heard this fairy tale: The brick house wins.

But what we don't consider when telling this story is that the brick-building piggy was a bit of an early innovator. He decided to go against the grain and try out a new technology: bricks. His pig brethren scoffed at him: They said it would be more difficult to use this material; they were just fine the way they were.

However, let's try rewriting this story so that all the pigs have a fair chance at survival. Let's say that the other two piggies won a grant for some state-of-the-art bricks. They see that bricks are leading to extended pig-longevity and so decide to jump on the bandwagon and "innovate." They wheel their cart of bricks up to their stick and straw houses and think, "But I love my straw windows. And my stick foyer is what I'm comfortable with. I've lived this way for years and it's worked for me. But they say bricks are better. I guess I have to use them."

So, wanting to use the bricks but not wanting to change their structure, the two little pigs just duct tape the bricks to their stick and straw structures. You don't need to be a structural engineer to know what happens when you duct tape bricks to sticks and straw. Yup, the houses collapse. The wolf eats the pigs. The End.

I don't tell you this fractured fairy tale to make you sad. It's a metaphor for what I did when I first got my shiny new "innovative tools." The iPads arrived a few days before my students, and I quickly made plans to integrate them into the structure of my classroom. Throughout that fall, a casual observer would have witnessed my students glued to a sea of glistening tablets. It all looked great. But the effects were superficial.

The iPads were not helping my students make substantial progress toward self-efficacy, academic achievement, or social-emotional growth. After weeks of frustration and little tangible progress, I took a step back and asked myself, "What have we been doing so far with this technology?" Students used math apps instead of math card games. They logged onto websites that showed them instructional cartoons and quizzed their knowledge. They'd annotated a few PDFs of short nonfiction texts. They'd done some research on the Internet. In short, things were going . . . OK. Things were different in my classroom, certainly. But just as certain was the fact that things were no *better* than before the technology rolled in.

The problem, I began to realize, was my own understanding of the role of technology in our classroom. I had seen it as a supplement to my preexisting curriculum, trying to fit it into the structure of what I'd always done. Like those piggies, I was trying to duct tape these new tools onto my straw house.

As terrifying as it may sound, I had to find the courage to take a proverbial sledgehammer to my existing classroom framework. This realization was a turning point for me. I would have to be willing to depart from what I had always done or always taught. I needed to create a blueprint for a fresh classroom design with the power of my new tools in mind. By setting aside my preconceived notions of how my classroom "should" look, sound, and feel, I was able to transform my practice from the ground up. Finally, I was ready to innovate.

## FROM HOUSES TO SHIPS

Now take this metaphor of technology being the powerful new building blocks for our classroom and imagine that instead of building houses, we're building something more mobile, like ships. Technology becomes the building blocks for better, faster vehicles that can help our students sail to realms of increased opportunity. Until now, we've been floating on rafts. We've been at the whim of the fickle tides of educational politics and testing. At best, we've been able to tether to stagnant buoys in the form of big-box curriculum companies. We haven't been given the freedom to truly *sail*.

Once we have digital devices to become our powerful ships, we must find a destination to which to sail. No, technology isn't the destination—mastering it is not the goal. Remember, technology is your *vehicle*. The *destination* is that elusive concept: Innovation.

## WHAT IS INNOVATION?

*Innovation* has become an overused word across many industries. Education is no exception. A basic Internet book search for *education innovation* yields over 17,000 titles. In fact, I was hesitant to include the word in my own title for fear of sounding cliché. Yet I believe in the concept of innovation and posit that we have only begun to touch the surface on understanding its application in schools. Many people in education tend to use the word *innovation* to refer to the digital transformation or the increased use of technology in school settings. However, this focuses on a minute aspect of educational innovation. So let's start with the basics and ask, "What is innovation?" To respond to this, I have three points:

**(1) Innovation is not only different but also better.** According to Merriam-Webster, innovation is "the act or process of introducing new ideas, devices, or methods." I don't think that many would disagree with this meaning. Yet we should be cautious, as *new* is easily misconstrued as *better* and that's not always the case. *New* does not always necessarily infer *and improved*. Recall product flops such as LaserDisc, New Coke, and BetaMax. While these all sounded exciting and different at their onset, they didn't effectively improve upon the original idea.

In the realm of education, innovation is about solving old problems with new and *better* ideas. It's one of the reasons the word is popping up more often these days—we have new tools to utilize in our classrooms and therefore new opportunities to solve our problems. We must be careful that the focus doesn't shift from bettering our situations to just using tools. Many educators share this view of educational innovation. In fact, George Couros in his book, *The Innovator's Mindset*, writes at length about this specific definition. "Innovation can come from either 'invention' (something totally new) or 'iteration' (a change of something that already exists), but if it does not meet the idea of new and better, it is not innovative."<sup>1</sup> So as we embark on our journey to innovate in our educational space, we want to consistently be auditing our practice by asking ourselves, "Is the new also improved?"

**(2) Innovation is personal.** To illustrate this point, let's posit a scenario: Suppose two women alone on two separate yet identical ships were lost at sea. Dying of thirst, they both searched for ways to create fresh water using the exact same materials. They both came up with the same new and incredible

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<sup>1</sup>Couros, G. (2015). *The innovator's mindset*. Dave Burgess Consulting.

idea. However, the woman on Ship A came up with it before the woman on Ship B. Does that make the woman on Ship B's idea any less innovative? Is something less innovative if someone else has done it before?

Let's take it a step further to say that Ms. Ship B didn't actually come up with the idea on her own but somehow heard about Ms. Ship A's breakthrough and then decided to try it out. True, Ms. Ship B won't get credit for the idea itself, but does that make her decision to utilize it and the positive change on her life any less impactful?

Just because something is old hat to one person doesn't mean that it isn't life changing to someone else. For example, finding a way to instantly share student work with families may seem mundane to teachers that have digital portfolio platforms and learning management tools, but it may make a huge difference for teachers with neither previous access to nor knowledge of these tools.

In the past, I used to judge the level or validity of innovative practices in and around our schools. As I worked with teachers, I would deem some of forays into digital practices to be low-level concepts while others were higher ranking. What I forgot to take into account was the personal situations and circumstances of each teacher and his or her students. I began to realize that rather than judging the innovation level of a colleague as an outsider, I needed to be a reflective partner to help the teacher make that assessment on his or her own.

When pursuing innovation within your classroom, you should be able to identify your own unique challenges and explore what different and better ideas are out there to combat them. Whether the world deems these ideas innovative shouldn't matter. If they are truly creating different and better opportunities for you and your students, it's innovation to you.

**(3) Innovation shouldn't be a luxury (but it is).** As I visit schools and districts across the U.S. and beyond, something has become evident to me: The ability to innovate is a luxury. Some schools can afford it and others cannot. By this, I don't just mean the financial burden of purchasing devices. I refer to the political and temporal burden of scripted curricula and test-driven school culture. Some schools—often private, high-achieving public, or charter schools—allow for a certain level of teacher autonomy, risk taking, and creativity when shaping their student learning.

Other schools—too often, those in rural or urban areas or those serving at-risk youth—face a myriad of pressures (test scores, district mandates, etc.) and thus restrict these choices by applying a high level of oversight on what, how, and when things must be taught. As a result, the gap continues to grow between schools actively exploring new methods to improve teaching and learning and schools passively using digital tools for the sake of the tools. The latter usually takes the form of low-level drill-and-kill programs that do

little to inspire or engage our students (but rather drill and kill any curiosity out of them). The 2016 U.S. Department of Education’s National Education Technology Plan calls this difference the Digital Use Divide<sup>2</sup> (see Figure 1.1).

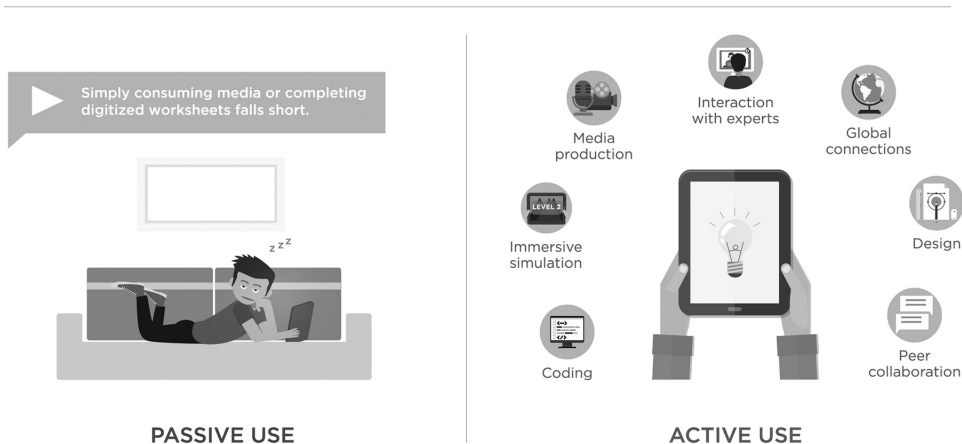
However, there is a third group of schools: those that face the challenges of high-stakes testing as well as other pressures and still permit teachers the freedom to try new methodologies and give them the space to fail forward. These schools usually have a leader at the helm that understands and embraces the potential student benefits for allowing room for innovation. I was lucky to be a teacher in one of these schools.

In 2006, my principal, Amy Rome, encouraged the teachers at National Teachers Academy to take charge of not only our classrooms but to become leaders in the school itself. Despite the fact that at the time, our student population was over 95% low-income and we were struggling to raise test scores to meet district and state requirements, she believed that empowering teachers to empower their students was a key part of the equation—not drill-and-kill lesson sets. As a result, I had the rare opportunity to explore the world of inner-city innovation. I deviated from the scripted curriculum and took risks and my students began to thrive. Whereas workshops, trainings, and literature told me that my students

**FIGURE 1.1** The Digital Use Divide

## DIGITAL USE DIVIDE

While essential, closing the digital divide alone will not transform learning. We must also close the digital **use** divide by ensuring all students understand how to use technology as a tool to engage in creative, productive, life-long learning rather than simply consuming passive content.



<sup>2</sup>Office of Educational Technology. (n.d.). *National education technology plan*. Retrieved from <http://tech.ed.gov/netp>

needed a highly regulated day, a “rigorous program” (read: scripted curricula), and increased structure, I found exactly the opposite. The more freedom I gave my class, the more effort and progress they made. The more opportunities for choice I gave them, the more often they made positive choices.

Innovation shouldn't be a luxury given only to those schools that can politically afford to give their teachers the time and space to take risks. And yet it is. So what can we do?

To classroom teachers in a setting without the freedom to experiment who are reading this: Don't despair. As you move through these pages, you'll hopefully find kernels of hope in some of the simple ideas that you do have the power to implement. It may take longer to see the transformation, but these mini tweaks will build into something bigger over time. An inch forward is still moving in the right direction, so don't stop yourself because the impact seems too small. Remember the point above—innovation is personal. To the outside world, the changes may seem small, but for you and your students, it could make all the difference.

To school leaders in these settings, consider how you can encourage teachers to try new things and empower them with the belief that taking risks and attempting innovation is worthy of their time and effort. Hopefully this book can give you a few ideas to explore and disseminate. Know that you don't have to implement everything overnight or in all aspects of your school setting. As you read this book, look for ideas to try, methods to share, and areas of the school day in which you might give more space for teacher collaboration and risk taking.

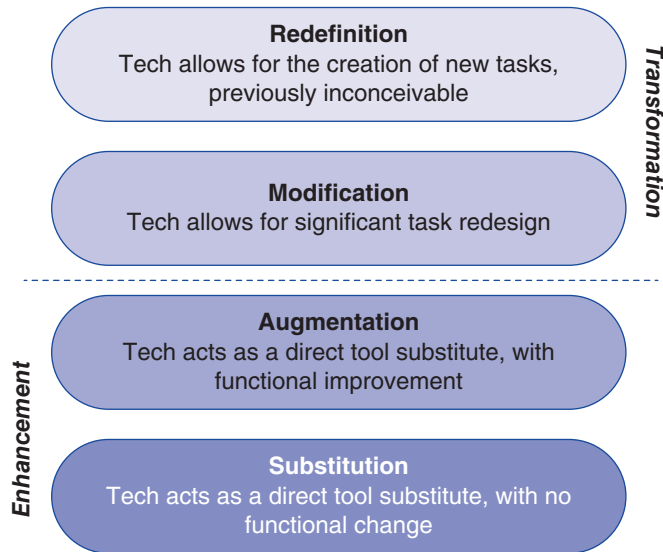
To those classroom teachers lucky enough to be in a setting where you have the freedom and will to dive into innovation, *share your story* (see Part III for ideas on how to do this). The more voices and examples of positive change that can be had through educators taking risks and changing the educational narrative, the better!

Regardless of your circumstances, know that just because there is the freedom or the will to innovate doesn't mean it's always happening. Remember, when I began my quest to innovate I had both—and yet, at first, I failed to reach innovation in any sense of the word. Hopefully reading this book will help you visualize your destination a bit better so you won't have to turn around and start over as I did.

To avoid losing sight of your target, frequently check your progress and consider this: Is where you are today a different and better place than yesterday? Are you moving? If so, are you moving in the right direction? Remember, just as ships can help you sail toward a wondrous land of innovation, they can also get blown off course and wind up in a place worse off than where you started. So make sure you have a compass to check your course and heading. Below are two options to serve as that compass.

## TWO COMPASS OPTIONS: THE SAMR AND TIM FRAMEWORKS

FIGURE 1.2 The SAMR Model<sup>3</sup>



The SAMR Model, shown in Figure 1.2, is a simple framework to measure the impact of digital tools, created by Dr. Ruben Puentedura in the 1980s. The name is an acronym that represents the four stages of this scale: substitution, augmentation, modification, and redefinition. What’s interesting about this model is that it doesn’t focus on the improvement of the **tool** but rather the **goal** that the tool is attempting to achieve.

- At the **substitution** level, you’re simply swapping out the analog tool for a parallel digital one. There is no real improvement to the task or its ability to meet the goal. For example, if a student is writing a letter with pencil and paper, a substitution-level activity would be typing it on a word processor, then printing it out and mailing it.
- At the **augmentation** level, the digital tool is improving on the analog tool without changing the task itself. For example, think of sending the letter via e-mail—you’re still typing up a letter, it’s just getting there faster.
- At the **modification** level, you begin to change the task itself. Instead of e-mailing a letter, you are video chatting in real time, improving the speed and efficacy at which you can communicate and also introducing a new visual dynamic.

<sup>3</sup>Puentedura. <http://hippasus.com/blog/>

- At the ultimate level of this model—**redefinition**—the task itself is completely transformed, providing a way to meet the goal that would be otherwise impossible without the technology. In this case, you may be video chatting not only with one person but with many and integrating other mediums such as collaborative drawing/writing/planning spaces, interactive media, or accessibility supports like live translation software or subtitles for the hearing impaired.

As you move through the SAMR model, it's important to note that the first two stages, *substitution* and *augmentation*, are in the enhancement level. They are simply adding onto the existing strategy or task. Once you reach the third and fourth stages, *modification* and *redefinition*, you are at the transformation level. At this point, you begin to change the task or strategy itself so as to improve on its efficacy to meet the goal.

If you are looking for a more complex model, consider the Technology Integration Matrix (TIM)<sup>4</sup> developed by the Florida Center for Instructional Technology at the University of South Florida. As seen in Figure 1.3,<sup>5</sup> this matrix is a continuum, just as the SAMR model, that helps educators reflect on their use of digital tools to improve learning. However, this is a three-dimensional matrix, with the three variables being learning environment, curricular technology integration level, and the object of transformation—student activity, teacher activity, or environment (in each cell). The vertical axis lists the five characteristics of a meaningful learning environment; the horizontal axis lists the five levels of technology integration into the curriculum. Each row and column header in the matrix opens into its own table, drilling down into descriptors for how these levels change the students, teachers, and the environment. While the tool has four versions that can be printed out as PDFs, it's much more robust as a digital tool. You can click on each cell within the matrix to find more detailed descriptors as well as video examples of in various content areas modeling the different levels and characteristics. This is a tool that takes a bit more getting used to, but it provides a wealth of details and guidance to support self-reflection.

## DECIDING WHEN TO USE SAMR AND WHEN TO USE TIM

Both SAMR and TIM are incredibly helpful tools for their own unique reasons. I have used and continue to use both in my practice. SAMR has been

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<sup>4</sup>Florida Center for Instructional Technology. (2016). *The technology integration matrix*. Retrieved from <http://fcit.usf.edu/matrix/>

<sup>5</sup>The Technology Integration Matrix was developed by the Florida Center for Instructional Technology at the University of South Florida College of Education and funded with grants from the Florida Department of Education. For more information, visit <http://mytechmatrix.org>.



**FIGURE 1.3** Technology Integration Matrix

**Levels of Technology Integration Into the Curriculum**

	<b>Entry</b>	<b>Adoption</b>	<b>Adaption</b>	<b>Infusion</b>	<b>Transformation</b>	
<b>Characteristics of the Learning Environment</b>	<b>Active</b>	Information passively received	Conventional, procedural use of tools	Conventional independent use of tools; some student choice and exploration	Choice of tools and regular, self-directed use	Extensive and unconventional use of tools
	<b>Collaborative</b>	Individual student use of tools	Collaborative use of tools in conventional ways	Collaborative use of tools; some student choice and exploration	Choice of tools and regular use for collaboration	Collaboration with peers and outside resources in ways not possible without technology
	<b>Constructive</b>	Information delivered to students	Guided, conventional use for building knowledge	Independent use for building knowledge; some student choice and exploration	Choice and regular use for building knowledge	Extensive and unconventional use of technology tools to build knowledge
	<b>Authentic</b>	Use unrelated to the world outside of the instructional setting	Guided use in activities with some meaningful context	Independent use in activities connected to students' lives; some student choice and exploration	Choice of tools and regular use in meaningful activities	Innovative use for higher order learning activities in a local or global context
	<b>Goal-Directed</b>	Directions given, step-by-step task monitoring	Conventional and procedural use of tools to plan or monitor	Purposeful use of tools to plan and monitor; some student choice and exploration	Flexible and seamless use of tools to plan and monitor	Extensive and higher order use of tools to plan and monitor

SOURCE: Used with permission from the Florida Center for Instructional Technology, fcit.usf.edu

most helpful in getting started. When I want a straightforward framework to explain to a colleague how to reflect upon her practice and keep on course toward that different and better innovation, I introduce the SAMR model. It's not as intimidating and can be printed out—a great scaffold for someone who is already stymied by digital tools. Together, we take a look at the circumstances in her classroom—her students, families, curriculum, school/

district expectations, standards, and so on. Then we look at the challenges we're trying to solve and the new methods we're attempting. The SAMR model allows us to put a lens on these new methods to answer the following questions: Is this solution better than what I was doing before? If not, is it worth the time and tech (substitution)? If so, how? Is it doing the following?

- Improving on the original task but keeping the task the same (augmentation)
- Changing the task itself for the better (modification)
- Completely reimagining the task in a positive way that was previously inconceivable without the tool (redefinition)

If you're concerned that your focus may stray too easily away from the teaching and too much toward the tool, you may want to use TIM instead. Since this model is rooted in instructional language, its very indicators and descriptors force you to keep learning at the center. In fact, one of the transformation-level descriptors specifically advocate for this: "The technology tools become an invisible part of the learning" (Transformation Level Integration/Active Learning Environment/Student Activity).

This is also the model I would use if I were working with a teacher who has already dipped his toes into the water but wants to push himself further. It drills down deeper by descriptor and allows you to look at more finite aspects of your instruction. For example, how much choice are you giving students in selecting the tool they use to meet an instructional goal? How does technology facilitate more higher-order thinking in your classroom? And if you aren't sure what this looks like, the videos embedded within the matrix (though a bit dated at this point) provide a basic idea of these concepts in action.

Regardless of which framework you use, here are two things to keep in mind:

**1. Focus on the practice, not the tools.** As mentioned several times already (and will continue to be mentioned), it's all too easy to lose sight of the forest through the trees. Even if you begin with a focus on pedagogy and student learning, this can quickly turn into a quest for finding the perfect app or improving a particular digital skill. Don't use these frameworks to reflect upon your digital skills (i.e., screencasting, blogging, using augmented reality) but instead reflect upon your digital instructional practices (i.e., using screencasting to differentiate for students, blogging to cultivate stronger student voice, using augmented reality to add another perspective to learning).

**2. Reflect, don't evaluate.** While it is clear that the goal in both of these tools is to move up the scale, the SAMR and TIM frameworks should be used as a guide to reflect upon practice—not to evaluate it. Innovation is about taking risks and getting out of your comfort zone. This is not an area that can be evaluated. Either you are taking risks or you're not. To evaluate

is to insinuate that failure is a bad thing—and in risk taking, failure is part and parcel to the process (in Chapter 5, we will explore this concept in more depth). It's reflection that's most important when trying to make impactful change.

## SETTING A COURSE FOR INNOVATION

Innovation is an ambiguous and daunting goal. Despite the fact that there are many ways to unpack this word and interpret it, there is one constant we can all agree on—we want the outcome to be better than what we started with. I use the phrase *Innovation Island* a few times throughout the book because it's catchy and I like a good alliteration. However, as you pursue innovation—a place where *different* and *better* coexist—you'll find that it's not stationary. It's a constantly moving target, making it difficult to plot a trajectory. Consider it one of those haunting floating islands from myths long ago; your goal is to sail through the mist and find it.

No big deal, right? Just find a mythical island called Innovation using your magical boat made of digital tools and do all of it while navigating around the many obstacles along the way. How are you supposed to do this? Well, it's easier to recognize *different* and *better* when you know what is better. It is also easier to achieve grander levels of *better* when we first start small. So, to help us measure a tangible improvement and get you started on your journey, this book starts with you—your needs and your challenges—before pushing out into deeper waters. In the next chapter, we will begin to dig into these challenges and set up a process to begin your edventure.

## chapter 2



# PROBLEM-BASED LEARNING

## *It's Not Just for Kids*

*OK, we've set a course toward Innovation Island. Now how do we get there?*

It's one thing to internalize the concept of innovation and yet another thing entirely to understand the route to get there. So how does one who wants to transform learning but has no idea where to start get started? Well, we established in the previous chapter that innovation is about changing things for the better. Therefore, we need to know—what are we changing and what about it needs to be improved? Rather than starting with grandiose ideas involving virtual reality, redefined school day schedules, and transformed classroom spaces, it helps to start small. And to start small, we go to a big source: your problems.

This is something teachers around the globe have in common—a list of problems wider and deeper than the ocean itself. We share them over our coffees while supervising morning entry and dismissal and in the rare occasions when we have time to eat lunch together. We lament to our partners and families about “if only.” So what would you do if you had a magic wand and could somehow finally address one of these nagging problems? Would that make your educational life different and better?

You might have heard of—or utilized—problem-based learning (PBL) as a strategy for teaching students. It's the method of centering a unit of study on a problem and designing all learning activities and outcomes around solving this problem. It gives your study a purpose and does wonders for student engagement. My experience using PBL in my classroom was so successful that when I began to work with adult learners (i.e., my fellow teachers), I decided to try this out with them as well.

Problem-based innovation (PBI) maps out your journey by first identifying existing problems of practice so as to determine a solution-based action

plan. It roots itself in your personal needs and intrinsically builds that oh-so-needed buy-in. Think about it—when you are given another goal to tackle or strategy to learn, regardless of how much you believe in the philosophy, it’s difficult to give it your all when it’s one more thing on top of the many problems that are already plaguing you.

This isn’t to say that you haven’t already tried to solve these problems. PBI invites you to look at it from a different angle with the help of a different set of tools. If you can use these new tools and strategies to first address these problems, it can have a twofold positive effect: demonstrating the impact of technology on real problems and clearing your plate rather than adding to it. Once one of your challenges has been addressed, you’ll have renewed mental and emotional space to dig into taking risks and trying new things.

As time goes on and these initial problems are successfully addressed, you will be better prepared to sail further toward your ultimate destination and try some of those newfangled ideas. So to get started on your PBI adventure, let’s first identify your most plaguing problems, understand them, and come up with a route to circumvent them.

## **TEACHER INNOVATION EXPLORATION PLAN: AN INDIVIDUALIZED EDUCATION PROGRAM FOR TEACHERS**

Framing the PBI experience isn’t always an easy task for a busy teacher. As such, I’ve developed a template to scaffold the process: the Teacher Innovation Exploration Plan or TIEP. Adapted from the idea of a student

Individualized Education Program (IEP), the TIEP focuses your PBI around a selected problem of practice and then guides you in a scaffolded plan to meet this challenge. You can find two versions of an interactive TIEP template on the companion website, one for individual use (Figure 2.1) and one to use with or as a coach (Figure 2.2). Scan QR Code 2 to visit the page.

QR Code 2



## **IDENTIFYING THE PROBLEM OF PRACTICE**

To begin with your TIEP, you first need to identify what specific issues are weighing you down. One way I like to do this is an activity I call the “Gripe Jam.”

I have teachers sit at large tables or individual desks with plenty of room to spread out. After giving everyone a stack of sticky notes, I let the teachers know that we’re about to engage in a Gripe Jam. (Note: While I did this with a whole group during a meeting, you can certainly try it yourself with a stack of sticky notes at your desk or kitchen table.)

**FIGURE 2.1** TIEP Teacher Version (Blank)

**Teacher Innovation Exploration Plan (TIEP)**

**PROBLEM OF PRACTICE**

<b>Problem Description (be as detailed as possible)</b>

**Past Solutions**

What you've already tried	What worked	What didn't work

**NEW SOLUTION**

<b>New Solution</b>	
What you need to accomplish this	Support you need (and from whom)

**Action Plan**

Action Item	Step-by-Step to Do List	Due Date	Needs / Notes / Reflection

**FINAL REFLECTION**

What worked	What didn't work
<b>What will you do differently next time?</b>	

**FIGURE 2.2** TIEP Coaching Version (Blank)

**Teacher Innovation Exploration Plan (TIEP)—Coaching Version**

**PROBLEM OF PRACTICE**

<b>Problem Description (be as detailed as possible)</b>

**Past Solutions**

What you've already tried	What worked	What didn't work

**NEW SOLUTION**

<b>New Solution</b>	
What you need to accomplish this	Support you need (and from whom)

**Action Plan / Coaching Notes**

Action Item	Meeting Notes	Due Date	Next Steps (Coach)	Next Steps (Teacher)

**FINAL REFLECTION**

What worked	What didn't work
<b>What will you do differently next time?</b>	

I then ask the teachers to think about all of the challenges they face throughout their educational lives. As they do, they should write each problem on a sticky note. They are to follow two guidelines while doing so:

- One problem per sticky note
- No problem is too big or small (don't sort your problems yet, just get them all down on paper)

To help the teachers bring to mind problems they may face, I give them situations to imagine, one at a time:

- You just arrived at school.
- Your students are entering the classroom.
- You're teaching a whole-group lesson.
- You're teaching a small-group lesson.
- Your students are participating in group work.
- It's your planning period.
- It's lunch time.
- Your students just left for the day.
- You're sitting in professional development.
- It's Sunday night.
- You're grading work.
- You're in a staff meeting.
- It's the middle of the night and you can't sleep because . . .

Then I play the rock anthem "We're Not Gonna Take It," let them know that they have until the end of the song to write down any and all challenges they face in their classrooms, and let them go at it.

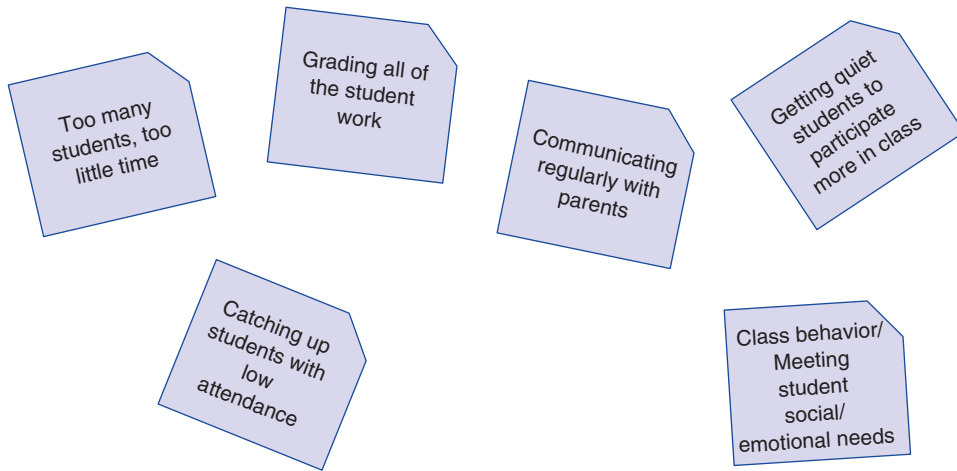
Once the song is over, they spread their notes out on their desk. This is a pretty simple idea: allowing yourself to gripe about problems. This happens unofficially every day in teachers' lounges, after school, and over dinner tables. However, the next part of the process is the important differentiator between staff room griping and a productive Gripe Jam.

After teachers finish their cathartic unloading of obstacles, they shake out the pile and try to categorize the complaints. They ask themselves a series of questions to analyze and sort the problems as follows (see Figures 2.3–2.7 for examples)

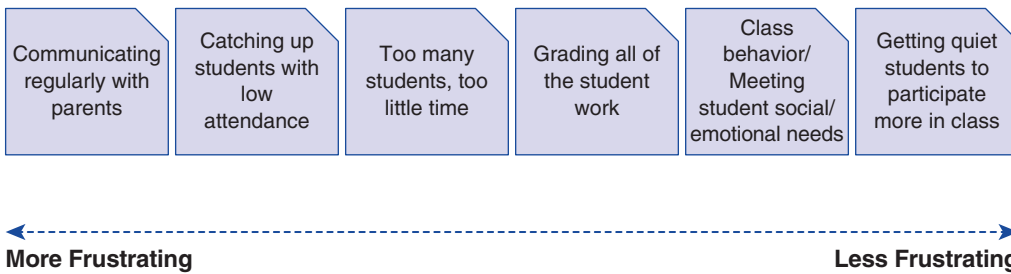
- How frustrating do you find these problems?  
*(sort in a straight line from most frustrating to least frustrating, left to right)*
- How many people does this problem affect?  
*(move them up or down based on approximate number of people affected, keeping them in their horizontal order)*
- Which of these problems are you most passionate in solving?  
*(draw a circle around these notes)*



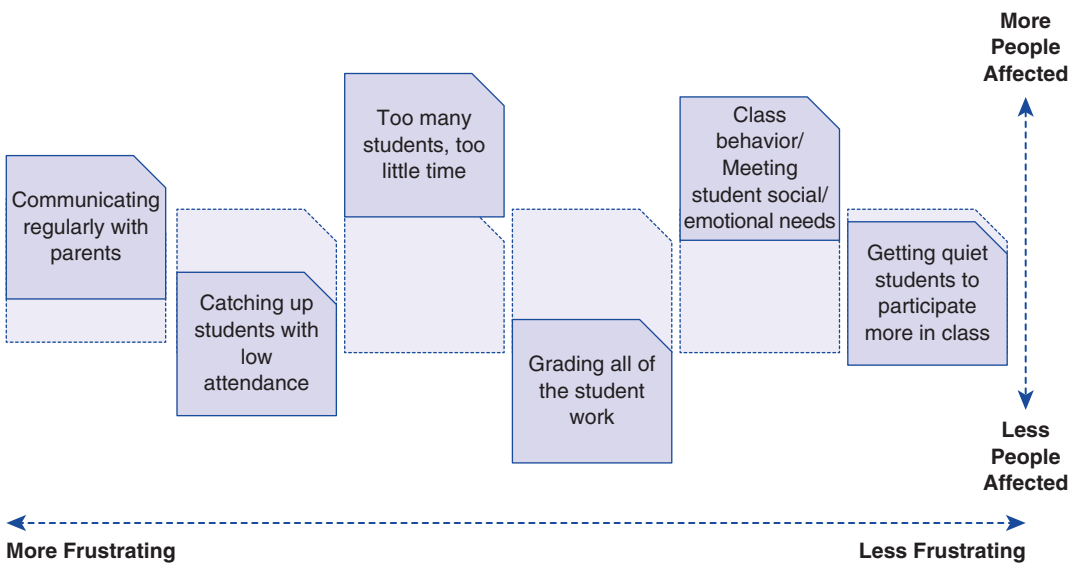
**FIGURE 2.3** Write Down All of Your Problems



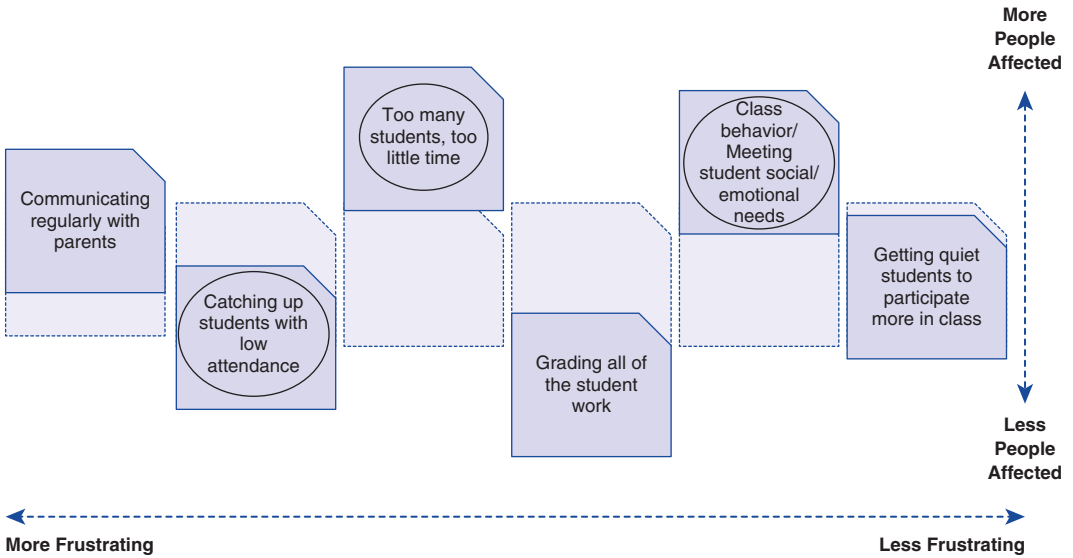
**FIGURE 2.4** How Frustrating Do You Find These Problems?



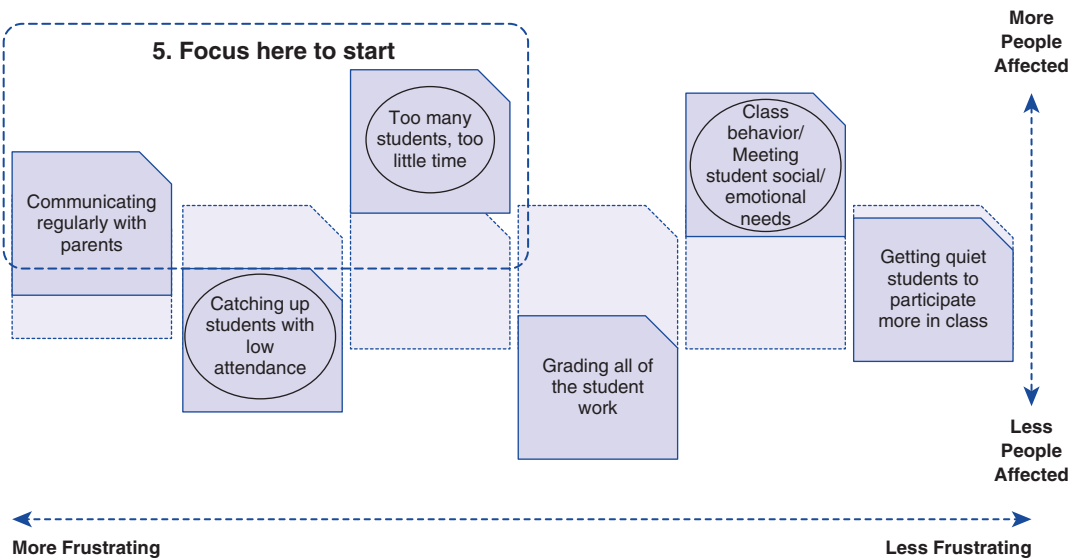
**FIGURE 2.5** How Many People Do These Problems Affect?



**FIGURE 2.6** Which Problems Am I Most Passionate About Solving?



**FIGURE 2.7** Focus Here to Start



You can go through this Gripe Jam as a collaborative group or as an individual. If you decide to engage in this process as a group, an optional added activity is a gallery walk. Once the problems have been sorted and circled, everyone gets up and silently examines each other's Gripes. As participants circulate and review their colleagues' problems, they can leave notes regarding the following:

- Ideas to address a challenge
- Contact information to collaborate on a challenge
- Encouraging notes or a star to give a “yeah, me too” nod of agreement about a challenge

Upon returning to original workspaces, participants review notes left to them and update their sort based on what they saw on other tables and/or feedback given. I love to see the collective sigh that arises when colleagues see that they aren’t alone in their struggles . . . and when they sometimes receive the gift of a collaborator who has volunteered to team up and attack that struggle together.

After teachers complete their sort (and the optional gallery walk), it’s time to select a problem of practice. I ask them to begin by looking at the top left quadrant. These will be the problems that affect the most people and cause them the most frustration. Still, if they see a circled problem that they’re passionate about solving but is located in another quadrant, they can certainly decide to start there. The most important thing is that you are excited and motivated by the challenge.

You should also start to ask yourself, can technology help me in solving this problem? The answer may be no, and that may be okay. It may be something you still want to take another look at and try to solve in a new way. Remember: Innovation is not contingent on technology. However, for the purpose of this book, try to select a problem that has the potential to be solved with technology. Not sure if it can be? That’s what Part II of this book is for!

## ..... Choosing the Best Problem: What to Avoid .....

As I have mentioned already, when innovating in schools, tools are too often the focus. So when selecting a problem of practice, while you certainly want to think about how tech can be part of the solution, be sure it focuses on **pedagogy**, not tools. For many, the first challenge to come to mind is logistics, like finding the money to purchase devices, programs for devices, peripherals (cases, headphones, power stations), Wi-Fi, and so on. And yet, more and more schools are beginning to solve these initial problems only to realize that they now have piles of tech in classrooms and no plan on how to use them.

The second challenge often considered is simply taking out and using the devices each day. More and more digital learning programs are being created to take traditional workbooks and repackage them as animated activities. Yet, does simply digitizing instruction improve student learning? What opportunities does this provide that analog tools cannot? How are these opportunities better than before?

I would argue that these “adaptive” learning programs offering scores of word problems, video lessons, and multiple choice questions aren’t truly providing improved opportunities for our students. Sure, they are different. Initially, they may be more engaging. But the novelty soon wears off for our kids as they realize they have been duped into a talking, dancing worksheet. We want to avoid making a change simply for the sake of being new or different. Therefore, as you select a challenge, be sure it focuses on **teaching** and **learning**. If you can solve that problem, you will be taking steps toward implementing changes that improve opportunities for your kids—and thus moving closer to true classroom innovation.

However you engage in the Gripe Jam, this process will help you identify a problem to solve. This problem will be the focal point around which you will build your TIEP, so it is important to take the time to find a good one.

## DEFINING THE PROBLEM OF PRACTICE

Once you have selected a problem of practice and have added it to your TIEP, it’s time to really get to know it. This problem is going to be the focus of your innovation efforts for the foreseeable future, so you want to make sure you truly understand all aspects of it.

First, write out a narrative of the challenge. Cite examples where it hinders your practice and explain what about it is frustrating. It helps to even write out times of day or days of the week that this problem is especially prevalent.

Next, list out any and all solutions to this problem that you have previously attempted. Talk to colleagues and see what they have tried. Be sure to list out what worked and didn’t work for each attempted and discarded idea. It’s important to try to identify *why* previous attempts didn’t work so as to determine what facets of those attempts *did* work. Oftentimes it wasn’t the solution as a whole that wasn’t successful but aspects of it. Those pieces are the bright spots you’ll want to focus on as you build a new and improved approach.

If you haven’t attempted to solve this problem in the past, you can still list out potential solutions you had considered but dismissed before attempting. Why didn’t you go for it—a lack of time? A perceived obstacle? Lack of resources? Write these out as well.

## STEPPING UP TO A SOLUTION

After you’ve spent some time getting familiar with your problem, it’s time to explore various ideas to address them. This is where Part II of this book

comes into play. Look at the various categories of problems and see if you can find one that's similar to yours—or perhaps I have written about your very problem itself (#nailedit)! For each problem, I offer some suggestions to try out. I don't want to call them solutions quite yet—that's for you to decide pending their success in your situation.

As you read through the suggestions, ask yourself which seems to fit your style, situation, and need the best. Of course, you may need to tinker with the strategy to personalize it to your setting. There may be more than one suggestion you'd like to try but pick one to start; you can always iterate and come back to this book to try an alternate approach.

Once you've found a potential solution, it's time to set up your step-by-step action plan. As you begin, keep the following five tips in mind:

1. *Take small bites.* Remember, it's important to take small bites. Some of the suggestions offered in this book are simple while others are quite complex. In any case, you want to outline specific action steps to implement this new idea in your classroom or school. So instead of writing down “get parent permission for students to use Twitter,” break this down into smaller steps: (1) write informational letter to parents, (2) schedule parent info meeting, (3) create permission slips, (4) offer permission slips at meeting, (5) send home permission slips with students whose parents did not attend meeting, and so on. This will increase your chance of completing the tasks and also help you to foresee any issues and understand what resources—be it time, space, or physical materials—you need to be successful.
2. *Hold yourself accountable.* Once you have a set list of tasks chunked into small and concrete steps, set due dates for each. The template also allows for a section to reflect on each step after it has been completed: What worked? What didn't? Is there still work to be done to complete this step? It helps to not only set the due dates on the TIEP but also on whatever planning calendar you use. Be it a high-tech digital calendar on your phone or computer or a paper-and-pencil planner, note these dates and even schedule periods of time to work on your action plan steps.
3. *Know what you need.* As you are creating your action steps, remember that educating students is a team effort. Asking for help is an important step in improving your practice. Be sure to outline what support you need, be it permission from parents, support from administration, or access to learning spaces or tools. Be sure to note who you're requesting support from and add this as an action step. (Tip: Add an action step to send follow-up requests, as oftentimes initial e-mails go unnoticed in busy school environments.)
4. *Focus on the problem, not the strategy.* While this may seem negative, it's an important mindset. As you get into the problem-solving process, it's easy to lose sight of the forest through the trees. By this

I mean you may become overly focused on the nuances of the approach and forget the problem you're trying to address. It can become about the tool or the workflow rather than trying to solve the problem. If the approach isn't working, feel free to toss parts of it out the window and retool the concept midstream.

5. *Celebrate small wins.* When tackling a problem, remind yourself to stop and reflect on what successes you achieve along the way. Too often, we wait to celebrate until the whole battle has been won, but emotionally, you may need more frequent reinforcement. If a particular part of your idea or day went well, take it for what it is—a win.

For an example of a completed action plan, see Figure 2.8.

**FIGURE 2.8** Example of Teacher Innovation Explorer Plan (TIEP)

<b>Teacher Innovation Exploration Plan (TIEP)</b>		
<b>PROBLEM OF PRACTICE</b>		
<b>Problem Description (be as detailed as possible)</b>		
<b>I spend all of my time grading student work! I teach four sections of 6th grade math and I feel like each night, I am grading 122 homework sheets, exit tickets, classroom activities and/or tests. I hate it! I'm constantly buried in this paperwork.</b>		
<b>Past Solutions</b>		
<b>What you've already tried</b>	<b>What worked</b>	<b>What didn't work</b>
Assigning less centers activity work.	There was less grading.	The students weren't as accountable for what they did in the centers.
Having students peer-grade their work.	Nothing.	I had to create an answer key and then the grading was superficial—they didn't give the same feedback I would have or they didn't understand the concept itself enough to help their peers. I ended up re-grading everything. I think if I had more time to teach them to give good feedback, they could do this for some activities, but for these assignments my students needed more in depth feedback.
Waiting to do all grading once a week.	It made me less stressed for four days—until I got to the grading day.	The day I had to do all the grading was a nightmare. Also, my students had to wait a week to get feedback.

(Continued)

**FIGURE 2.8** (Continued)

**NEW SOLUTION**

<b>New Solution</b>	
Using Google Forms and Google Sheets to grade student work	
<b>What you need to accomplish this</b>	<b>Support you need (and from whom)</b>
<ul style="list-style-type: none"> <li>● Google Form</li> <li>● Google Sheet</li> <li>● Flubaroo</li> <li>● Conditional Formatting</li> </ul>	<ul style="list-style-type: none"> <li>● Learn how to make a Form (YouTube).</li> <li>● Learn how to use Sheets (YouTube).</li> <li>● Learn how to use Flubaroo (YouTube).</li> <li>● Learn how to do Conditional Formatting (YouTube).</li> </ul>

**Action Plan**

<b>Action Item</b>	<b>Step-by-Step to Do List</b>	<b>Due Date</b>	<b>Needs / Notes / Reflection</b>
Learn skills.	<ol style="list-style-type: none"> <li>1. Set aside time to watch YouTube videos.</li> <li>2. Watch videos.</li> <li>3. Practice new skills.</li> </ol>	11/1	<a href="https://www.youtube.com/watch?v=_3oJu91KQV4">https://www.youtube.com/watch?v=_3oJu91KQV4</a> <a href="https://www.youtube.com/watch?v=U06W3H_iDho">https://www.youtube.com/watch?v=U06W3H_iDho</a>
Create new activity formative assessments using forms.	<ol style="list-style-type: none"> <li>1. Create Google Forms for students to submit “exit ticket” answers for each class.</li> <li>2. Use Flubaroo to grade it.</li> <li>3. Try this for a few lessons.</li> </ol>	11/10	Going to use for Unit 5—hopefully first few lessons. Will keep trying if it works
Try creating multiple forms to make differentiated assessments.	<ol style="list-style-type: none"> <li>1. Create three versions of the same assessment using three different forms.</li> <li>2. Use Flubaroo to grade it.</li> <li>3. Maybe put forms on a class website?</li> </ol>	12/1	Reflection—this was really easy! Used a video on branching forms and actually made the differentiated questions part of the same form.
Try making a summative assessment on a form.	<ol style="list-style-type: none"> <li>1. Create a final exam on the form.</li> <li>2. See how to embed images.</li> <li>3. Figure out how to mix order of questions to prevent cheating.</li> <li>4. Make sure students know how to use form well.</li> </ol>	12/10	Reflection—easy to add images as the teacher to the question, but students couldn’t really show work. I had them show their work on a separate sheet of paper and turn that in. I still had to do some hand-grading, but it was less than normal.
See if form data are easier to enter into grade book.	<ol style="list-style-type: none"> <li>1. Take spreadsheet data and put into grade book.</li> <li>2. Take hand-graded work to put into grade book.</li> <li>3. See if it is easier, same, or more challenging.</li> </ol>	12/12	Reflection—It was easier with spreadsheet. I could sort their names in alpha order.

## FINAL REFLECTION

What worked	What didn't work
Saved lots of time on grading!	Showing work couldn't be done digitally this way.
Immediate differentiation in quizzes was really cool.	Long response answers couldn't be graded.
Students liked getting the feedback so quickly.	Getting the the form was tricky—had to make a class website to make it easier.
What will you do differently next time?	
Try to see if another method lets students input images. I heard there is something that lets you do this in a form. I have to do some more searching.	

## CRITICAL FRIENDS

Asking for support from a variety of colleagues can be invaluable, and it can help to have a steady go-to person who knows your situation and is ready to hear new ideas and give feedback—someone who will keep you on track and make sure you stay the course in pursuing your TIEP. This is your Critical Friend.

More often than not, your Critical Friend is someone in a parallel position to yours—a fellow classroom teacher or, if you're a coach/administrator, someone with a similar set of duties. First, familiarize this person with your problem of practice—or, if possible—involve them in the Gripe Jam to determine the problem. Walk through your TIEP action plan and your progress to solve the problem. Schedule regular check-ins with this person—e-mails, phone calls, video conference calls, or in-person meetings. Ideally, this person is also embarking on an adventure themselves, so you can return the favor by being their Critical Friend as well!

Some tips for choosing a Critical Friend:

- Choose someone with whom you have a trusting relationship.
- Choose someone who you can meet with regularly, either in-person or via phone call or video chat.
- Choose someone who understands your situation and role.

Some ideas for getting started with your Critical Friend:

- Involve them in the Gripe Jam, if possible, or debrief the process afterward.
- Walk through your problem of practice with your Critical Friend and make sure he or she understands it as well as you do.



- Schedule out at least one month of check-in meetings at beginning. This will hold you to a schedule and help you stay accountable for digging into your TIEP.
- Set up norms about how you want to receive feedback and how you will work together.

Once you've set up your TIEP and mapped out a course for your problem-based journey, it's time to prepare your copilots in this adventure: your students. In the next chapter, I'll discuss some tips and tricks for getting them on board.