

O nce you've determined your problem of practice and scoped out your Teacher Innovation Exploration Plan (TIEP), your students need to be prepared for the journey. They should feel like they are a part of this edventure as copilots rather than conscripted sailors. Involve them in charting the course from the beginning and equip them with what they'll need to be successful along the way.

The two main skills to build as you set sail are

- how to sail your new ships (i.e., use digital tools effectively) and
- how to stay safe on the sea (i.e., digital citizenship).

In this chapter, we will explore these points and ideas for steering your students in the right direction.

LEARNING TO SAIL: STUDENT INNOVATION TEAMS

Oftentimes, when I first sit down with a teacher at the beginning of her innovation journey, she laments, "I'm really most worried about my students knowing more about these [fill-in-the-blank tech tool] than I do." I always respond, "Good! Use them to help you!" Many students love opportunities for leadership. I remember having kids fight over who gets to be the line leader, chair stacker, lunch monitor—when really all they were doing was helping me do my job. Even older students enjoy a bit of responsibility. Oftentimes, our high school students would loiter in the library before/after school or on free periods, looking for odd jobs to do. When introducing digital tools to your classroom, use this same concept to your advantage.

For each digitally outfitted classroom, I suggest creating a student tech leadership team to help teach and support tech use. You can call this whatever you want: Apple Genius Bar (for iOS classrooms), iLeaders, Tech Titans, and so on. I called my group the Student Innovation Team, SIT for short. The group laughed at the acronym as they said, "We may be called SIT but we never actually get to do that—we're always on the go!" Regardless of the name, it makes sense to build a team with enough students for a minimum 6:1 student-leader ratio. This allows for small-group support when rolling out new tech or complex digital workflows. I remember trying to teach my students a new app or program and directing them to "click the green button." Immediately I would hear a chorus of "I don't see a green button!" "My button is red!" "What did you say?" and "My iPad is broken!" I would then run around the classroom in a mad dash to respond and remedy these complaints. Once I had established my student leadership team (see Figure 3.1), I was able to calmly give the direction and all subsequent issues were immediately handled by the student leader stationed at each table or desk pod. I could circulate and support where needed, but for the most part, all problems were quickly and easily addressed.

Student leadership teams should be volunteer based to ensure buy-in. One way to build buy-in is making it application based. Teachers ask their students to apply for these positions in a similar manner to applying for a real job—by filling out an application and sitting for an interview. When K-2 classrooms want to use this model, the teachers ask students to draw a series of three pictures for their application: one picture of a time they acted like a leader, one picture of a time they solved a problem, and one picture of how they envision themselves in this job. Once the teams are established, teachers can even involve existing members to review new student leader applications.

FIGURE 3.1 Student Leadership Teams



After the students apply for the job and are selected, they are trained on how to be successful student leaders. As part of this training, the student leaders learn three golden rules by which they must abide:

- 1. Don't touch.
- 2. Go slow.
- 3. Be kind.

Don't Touch

Too often when someone asks for tech help, the person whose help was solicited simply takes the device and solves the problem for him. Although this fixes the problem in the moment, there is no learning for future problem solving. As such, we teach our student leaders to keep their hands behind their backs and lean in when supporting their peers. This stance helps the student stay focused on their peers and prevents succumbing to the desire to do it for them.

Go Slow

Usually the students who apply for these leadership teams are those that are quick on their feet—the first to finish their work, outgoing, and fast paced. While this makes them well-adapted to picking up tech concepts, it doesn't necessarily mean they have the patience to explain these concepts to their peers. I teach our student tech leaders to take it slow when explaining a process that they may deem simple to someone else. I ask them to practice breaking it down into the smallest steps they can think of and to count to three in their heads before giving the next step. The younger students actually count aloud, while the older students make this a mental routine. This wait time allows the other student to use this time to process the direction and successfully carry it out. My students teased me all the time that I talk too fast in class, so they even came up with the phrase "Oh no, you're going all Magiera on her" as a warning to slow down and count between steps.

Be Kind

Another common personality trait of our student leaders is difficulty empathizing with their peers' frustration. When I first began using student tech teams in our classes, I noticed that they quickly lost patience with those they were trying to support and their language bordered on unkind. Phrases like "Ugh, why are you so slow?" or "Oh geez, I can't believe you can't do that" were heard all too often. So during our initial student leadership training, the third golden rule we instill is kindness. We remind our students to envision how their teachers speak to them when they are frustrated and to model the same patient and kind language when working with their colleagues.

After they learn the three golden rules, the student leaders begin to meet on a regular basis to preview and practice tech tools and strategies. Depending on your particular situation, this could be before school, during a lunch period, or after school. The students get early access to new programs, apps, or strategies the class will soon be utilizing and have time to learn how they work, troubleshoot potential problems, and practice explaining their use to one another.

I've even seen this become a formal class or period during the day for middle school and high school students. These tech leadership groups go as far as to repair devices, give tutorials, and generally act as a tech help desk. They are able to help their peers as well as their teachers and school staff. Truly powerful examples of this push students even further to build apps or programs to solve school problems. In one of our schools, a student built a spreadsheet program to help with scheduling throughout the day while another created an app to help with dismissal safety.

These groups can even be pilot groups for potential tools or ideas that need vetting. I often had students try out apps I found and write reviews on them before I wrote them into our lessons. They would blog their reactions and even offer feedback to the developers themselves. See the following text box for one story about what transpired after my student blogged his reaction to a popular iOS app.

Student leadership groups are a useful way to instill a sense of student agency and empowerment into your classroom and school. It sends a message that this journey toward innovation and risk taking is a team effort between you and the class and creates powerful student buy-in. If you desire more structure and support in building your team, there are programs and web-based curricula such as Mouse Squad (http://mousesquad.org) that help you train and support students to take on these leadership roles.

In September of 2011, my student leaders were reviewing various annotation and screencasting apps (apps that allow you to handwrite over PDFs, blank screens, and other backgrounds). One in particular was a newer app called Explain Everything. One of my fifth graders, Kaleb, wrote the following review:

"I dislike the eraser, the movement, the buttons on the side, and other things I don't know the name of. When you zoom in, it messes up your whole thing because all the pieces of my writing move around for no reason. It is really hard to erase because sometimes you don't get to erase things after a while. I hate it and I never want to use it again. I like noterize or newannotate better." I posted his review to my blog and within a few weeks, I received an e-mail from Reshan Richards, the cocreator of Explain Everything. In it, he explained some of the features Kaleb had been frustrated with but also said the following:

"Please thank your students for their honest feedback! I am so sorry that they had trouble and were frustrated. With so many apps out there, it's all about finding the right tool for the intended learning outcome.

Another idea that I wanted to offer you was if you, your students, or these two kids wanted to do a Skype chat with me one day and tell me about other things that they think would be good to improve, it could create an authentic opportunity for them to see how small the world can be and how powerful their words can be when their thoughts are published for an audience in a meaningful way."

I was so impressed that an app developer wanted to hear from my class! We worked with their families to get permission for the video chat, set it up, and connected the students with Reshan. Kaleb proceeded to break down his feedback, explaining what worked for him, what didn't, and why. Reshan was incredibly engaged with the students, asking questions, giving clear answers, and thanking them earnestly for their thoughts. As the chat ended, I thought that was it (see Figure 3.2).

FIGURE 3.2 Explain Everything

Explain Everything @explainevrythng · 19 Oct 2011
Had a great time skyping with the students of @MsMagiera! They helped find a bug and also suggested some great feature updates!

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However, a few months later, Reshan reached back out again to let me know that thanks to Kaleb, he had reworked some of the features of his app. He said to let them know that they were now "app developers." I did and the looks on their faces when I told them were priceless. (They also asked if they were going to get a cut of the profits since they were now app developers.) All jokes aside, this was a powerful moment for the students. They were given a chance to be heard and given credit when their ideas made a difference. They knew this and it made a difference to them. In fact, in Kaleb's end-of-the-year video journal, he said, "I feel powerful because I was talking to this grown up and I told this grown up what to do to make the iPad App better. And that . . . changed my life."

As an aside, Explain Everything has evolved and grown to be one of our favorite apps to use both in and out of the classroom—and not only because our students helped give feedback in these early stages. You can find resources on it at the companion website here (see QR Code 3).

