



Leveling the Playing Field with Technology

The greatest moments for a school take place when something benefits the students as much as the teachers. The Joy School experienced such a moment when Mrs. Christine Dinh became the School's first Instructional Technologist.

After teaching for seven years as a Learning Specialist at TJS, Mrs. Dinh made the transition into her new role in fall of 2015. But even before she took on this new position, Mrs. Dinh harnessed the positive effects of integrating technology into projects in the classroom. One of her students, Anna, who came to The Joy School as a fourth grader last year, remembers what it was like before she discovered technological accommodations that would change the course of her education.

"Reading and writing used to be so frustrating," expressed Anna. "At my old school, they gave me flashcards and said, 'Don't stop till you learn them!'" Every night, my dad and I would go through what felt like a thousand flashcards. The word "they" was really hard. My dad would say, "You know this word," and I was like, "Dad, I don't know what the word is!" I knew I had seen the word before so many times, but I still couldn't read it. It took me a year or two to finally get "they" down."

It was obvious to Mrs. Dinh that Anna was a very bright student with lots of ideas. However, due to her learning differences, that wasn't reflected in Anna's writing.

"Anna would write something one day, then not be able to read it the next day. She couldn't make any changes to her work, so she had to start all over again," explains Mrs. Dinh. "Anna started selling herself short. She used simpler sentences and basic words, even though she knew more descriptive vocabulary words, so that she'd be able to understand what she wrote when she read it later on."

Anna was a model candidate for technological accommodations. Mrs. Dinh, who had been incorporating technology in her classroom over the years, saw how different apps could help Anna grow as a writer.

"After seeing Anna struggle, I introduced her to WordQ," says Mrs. Dinh. WordQ is a writing tool that suggests words for the user, reads what is written aloud so users can hear what they write, and even adapts to specific writing styles and improves as it's used.

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“Everything changed when I started using WordQ,” says Anna excitedly. “It helped me with spelling so I didn’t have to worry about that when I was trying to get my ideas out. Then it read back what I wrote so I could listen and see if it made sense. Sometimes I feel like I have so many ideas in my head, but can’t get them all on paper. Hearing what I wrote out loud helps increase my speed and understanding the next day when I go back to make changes.”

According to Head of School Shara Bumgarner, Anna is just one of many students whose struggles can be lessened by technological accommodations. “Tech integration levels the playing field for our kids. It lets them show what they know in their heads, but can’t express through traditional methods,” explains Mrs. Bumgarner. “For kids with motor planning issues, the act of physically writing can limit their ability to show what they know. So many kids who don’t use technology limit themselves. Their writing is immature and simplistic. But if you have a conversation with them, their vocabulary is much broader. Without technology helping them spell, kids are scared to use the wonderful words they know. Whether they just need spelling support or motor planning support, technology increases their output. It frees them up to focus on the language, message, audience and ideas they’re trying to get across.”

While technology can be used to help kids with learning differences, Mrs. Dinh and Mrs. Bumgarner agree that moderation is key. “Students know technology is there to help them when they need it, but shouldn’t do the work for them,” says Mrs. Dinh.

Mrs. Bumgarner elaborates on the use of moderation when it comes to technology, stating, “We are not giving our first graders laptops. We are not skipping handwriting instruction and moving straight to typing because they might be dyslexic. It’s really about timing and developmental appropriateness.”

Even Anna agrees... mostly. “I really like using Dragon Speak, but Mrs. Dinh says it can’t be the first thing we try.” Dragon Speak is software that allows the user to dictate sentences

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aloud, which are then transcribed into written text. “Sometimes Dragon Speak does the work for you. That’s cool and all, but Mrs. Dinh wants us to learn how to type. I guess I see her point. I know when I get older I’ll need to know how to type. That’s why I’m trying to learn where everything is on the keyboard so I don’t get stressed out about looking for a letter when I’m trying to write.”

In addition to helping students find technological accommodations and learning when and when not to use them, Mrs. Dinh helps faculty members integrate technology into their classrooms. This began long before it was her official job.

“I used to help fourth and fifth grade teachers bring technology into their classrooms, but as a full-time teacher that was all I could do since those were the grades I taught at the time. The School had a need for more technological integration across all grade levels,” Mrs. Dinh explained.

Mrs. Bumgarner echoed that sentiment, saying, “Christine’s ability to visit each teachers’ classroom and help them figure out what they need in a one-on-one, low pressure setting makes her such an asset to this position. Teachers get individualized professional development. You can’t pay for that. You couldn’t sign teachers up for enough workshops to be tailored to their class’s needs as what Christine is able to do in this role.”

While some programs and apps may be helpful across an entire grade level, a lot of what Christine brings to each class is very customized. “A teacher will email me that they’re working on gravity next week, and I will research new, interesting resources to reinforce the lesson.”

In addition to her ability to offer personalized help to teachers, another benefit of having Mrs. Dinh in this position is her past experience. Having been a teacher, Christine knows the time constraints our faculty face all too well. “While teachers have planning time, it’s often devoted to rounding out existing lessons. There isn’t a lot of time set aside to research new avenues for teaching. When you find something that works, you use it because you don’t have to re-learn it or troubleshoot something new. It saves time – which is so precious to a teacher! Having someone else dedicated to researching the latest and greatest practices lifts that burden off of teachers so they can focus on what they need to while knowing I can help them bring new elements to the classroom.”

When teachers can focus on the moment at hand instead of worrying about research or troubleshooting in the classroom, our students see the benefit.

On top of helping individual teachers, classrooms or entire grade levels, some of the technology initiatives Mrs. Dinh works on affect all students. “One of the first things we did this year is roll out our new one-to-one laptop program. Students in fourth and fifth grade have a laptop that’s actually theirs to keep when they leave TJS. The goal is to teach them how to use all the programs on their laptops while they’re here so they can master those skills and take them with them wherever they go when they mainstream from TJS. It puts them ahead of the curve when they’re entering a new environment.”

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For children with dyslexia, one of those programs is Bookshare, which is software for people who cannot read traditional print books because of physical or learning disabilities.

“Bookshare has classic fiction, new books, text books and more. It can read the books to the kids, highlight words on the screen, use enlarged fonts and has other features tailored to the reader. Once they register, they are signed up for life,” says Mrs. Dinh.

Technology goes beyond reading and writing and can be used for other subjects. When it comes to math, students use a computer application called Reflex to help improve fluency. “Math fluency is the speed and accuracy at which a student can answer addition, subtraction, multiplication and division problems based on their grade level,” Dinh explains.

“Most math fluency that comes with text book curriculum is “drill and kill.” There is no learning curve – it’s rote memorization. It is so important for our kids to improve their math fluency so that they eventually don’t lean on using blocks or adding on their fingers. That’s why we are trying to find fun, engaging and innovative games and apps that adapt to students.”

With Reflex, each student has his or her own account. As a student answers questions, the program changes based on the child’s needs. Kids are also given incentives as they work. The best part is, the kids actually like it. “Students play it in their free time! They like it because it keeps track of their level. The more problems they do, the higher ranking they get. Virtual rewards open up new math games – so the students get immediate gratification. Teachers like it because it’s all up to the kids. Yes, teachers monitor their students’ progress, but they don’t have to check in all the time or micromanage. Students like it because they get to manage their own progress,” explains Mrs. Dinh.

Taking ownership of their learning is just one of the ways technology benefits our students. Kids also learn how not to give up when something goes wrong.

“One of the hallmarks of a tech-savvy person is the willingness to troubleshoot and keep trying new things when there’s a glitch. Just because something doesn’t go smoothly the first time doesn’t mean it’s time to quit. Technology will never work 100% of the time, but that doesn’t mean you can stop using it. You have to try to find a work around,” explains Mrs. Dinh.

For example, TJS Learning Specialist Lynn Negrin found a great website to use in her classroom and enlisted Mrs. Dinh’s assistance in creating the lesson. While the website was a good resource, it didn’t work as well on her kids’ iPads. “Students kept playing around and poking at it until it worked for them. The site they were using in Safari eventually crashed, but they were okay with starting over and trying again. It sounds small, but it’s a valuable tech skill. It’s a lot like working with our kids at The

Joy School. There will never be a curriculum that is right for all of our kids. You have to be able to adapt and show perseverance through challenges, big or small,” says Mrs. Dinh.

While using technology can help kids learn take ownership of their progress and learn perseverance, Mrs. Bumgarner asserts that being tech savvy in general has its own merits.

“Technology itself is now a literacy,” says Mrs. Bumgarner. “Knowing how to access information online is just part of being an adult today. No one handwrites a college essay. You need to be able to type so you can send a business letter or professional resume. You have to be able spellcheck and edit. You also need to be able to recognize when something is a sales website versus a research article. Those are real skills. Gone are the days of copying paragraphs in your best handwriting. It’s a new literacy. You could never get a job and not know how to check email.”

Mrs. Dinh elaborates, “Teaching technology in the classroom is as important today as teaching reading, writing and math. Computer labs and technology lessons are no longer being taught exclusively outside of regular class time. Integrating technology into projects, lessons and discussions rather than simply using computers as a substitute for pen and paper is paramount to a student’s success.”

With Mrs. Dinh still in her first year as Instructional Technologist, she is excited to continue expanding her role and impact on both students and teachers at The Joy School. But for Anna’s writing, the positive impact of using technology has already been drastic. Now rather than shortening and simplifying her sentences, Anna fills pages easily.

“Remember when we had to shorten your paper because it was too long?” Mrs. Dinh asks Anna, recalling the fictional narrative her former student wrote after discovering WordQ. The narrative, which was published through a self-publishing company as a class project, was restricted to 10 pages of text and 10 pages of illustrations. “I had to convince Anna to save some of her ideas for a sequel to her novel because we were running out of space. What a difference from her first attempts at writing in my class.”

“I was excited about finally getting to share all my ideas!” Anna recounts excitedly. 📖

