Foreword

Welcome to the Technophobes … Come in, Come in …

By Dr. Liz Kolb

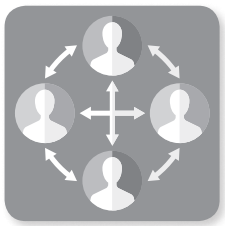
Technology is no longer an "add-on" for K–12 schools. As a result of the COVID-19 pandemic, many schools now rely on one-to-one devices, and are developing new opportunities for blended and online learning in their school districts. When my student teachers share with me that they are "technophobes" or "tech-illiterate," I no longer accept those stances as being allowable for new teachers. A teacher today must be tech-literate. And every teacher can become literate in using digital tools. The first step for teachers toward tech literacy is being knowledgeable in the ISTE Standards. This means teachers integrating evidence-based technology frameworks when designing lessons with digital tools, teachers being able to evaluate technology tools for sound instructional pedagogies as well as for discriminatory design, teachers modeling media literacy and digital wellness, teachers using technology to communicate and collaborate with the world around them, teachers analyzing and using digital data to make informed interventions, teachers preparing students to engage with digital assessments and productivity tools, teachers extending classroom learning through technology by bringing in real world experts and experiences, and teachers encouraging students to be creators, advocates, and entrepreneurs through technology. Being digitally literate also means teachers knowing when *not* to use technology tools—and that is an often-overlooked skill.

Technology is powerful; besides the classroom teacher, technology can be the most powerful tool in teaching and learning today. While technology can provide needed scaffolds, assistive supports, personalized learning and make meaningful connections between classroom learning and students' everyday lives, technology can also be harmful and dangerous if used ineffectively or haphazardly. Despite its power, technology is not a cure-all, it will not magically heal the problems that plague teaching and learning. As educators, we must have the know-how to make sure that our technology choices are not making our educational gaps and problems worse. Understanding how technology can benefit and harm is vital knowledge that every teacher must learn. Thus, teachers should dive in to the research on how pedagogical choices with digital tools impact our most vulnerable students. Having this knowledge will help teachers make research-informed choices that will benefit their students.

The well-known quote, often attributed to Marvel comic hero Spiderman, "with great power, comes great responsibility" holds true for technology in education. Every teacher has the shared responsibility to prepare their students to carefully navigate these powerful digital tools so they can responsibly use them for good in their lives and in the world around them. Teachers can no longer depend on "others" to prepare their students to be tech-literate, every teacher is responsible for doing this work. Every single teacher must be tech-literate in order to be an effective teacher today. This book is an essential manual for teachers, providing the vital pieces needed to responsibly and effectively be tech-literate today, ultimately guiding teachers on how to integrate the ISTE Standards into all areas of teaching and learning.

Welcome to all teachers, new and veteran, whether you are a tech-lover, sometime-tech-user, technophobe, tech-literate, tech-illiterate, or even a tech-hater … Come in, come in … your students are waiting and eager to learn how to be digitally literate in this connected world.

Liz Kolb (@lkolb) is a clinical associate professor of edtech at the University of Michigan in Ann Arbor and is the author of four ISTE books, including the best-selling *Learning First, Technology Second* (2017) and *Learning First, Technology Second in Practice* (2020).



1

Teaching and Learning with Edtech

In This Chapter:

- ISTE Certified Educator Shares Four Tips for Teaching with Tech
- Use Research-Based Approaches to Choose Edtech Apps
- Focus on UDL When Using Classroom Technology
- Four Tips for Creating Awesome Classroom Videos

EDUCATIONAL TECHNOLOGY (EDTECH) IS A BROAD TERM that can sometimes be intimidating. Often we find a tool that works, and we use that tool all of the time, whether or not it is the best tool for the students we have or the task at hand. Sometimes we get excited and use what I call "edtech for the sake of edtech." When working with students, we want to ensure they are exposed to opportunities to use the four Cs of digital age skills: critical thinking, creativity, collaboration, and communication. Using edtech also allows you to use UDL principles and personalized learning.

This is why one of the ISTE Standards for Educators states that "Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability." Too often, we find a tool that we really want to use with students and try to fit our standards to the tool. The articles in this chapter will guide you through a process to start with your objectives and standards, and then find a tool that fits your needs.

— **Moriah Walker** (@WalkerWizardsPJ), innovation specialist at Plains Junior School, Liberty Township, Ohio

ARTICLE 1

ISTE Certified Educator Shares Four Tips for Teaching with Tech

By Nicole Krueger

Two weeks before school started, the iPads arrived. Sixth-grade English teacher Laurie Guyon, who had never touched the device before, suddenly found herself in the midst of an exploratory 1:1 pilot. Her mission: give it a try and see what happens.

So she did. The first year, she and her students began to learn coding, along with essay writing. Before long, they were programming robots to act out the hero's journey.

"I kind of fell in love with it," she says. "From the first moment we did something on the iPad, I saw a higher level of engagement from students. There was a deeper learning that I started to see happen. I felt like it opened up more of the world and allowed some opportunities I would never have tried in the classroom."

Having pioneered her own tech integration journey, Guyon serves as a guide for other New York teachers who were thrust into a massive exploratory pilot last spring:

making the shift to online learning. As assistant coordinator for model schools at the Washington-Saratoga-Warren-Hamilton-Essex Board of Cooperative Educational Services in New York, she provides professional learning for teachers in thirty-one districts across the state, impacting nearly 40,000 students.

Throughout the COVID-19 pandemic, Guyon hosted virtual office hours to give teachers a place where they could drop in, ask questions and try things out. As teachers with varying technology comfort levels struggle to take their lessons online, she helps shepherd them through the basics of getting their classrooms connected and into discussions about best practices for teaching with technology.

"I feel like I'm ready for a lot of them to move past level one, especially since the pandemic," she says. "Where do we go from here? Now that we understand how to make a Google Slide, what are we going to do with it and how will it impact students? I want to get to where students are using technology to create, collaborate, and communicate, to do things in the classroom that really engage them in the learning process."

Guyon draws upon ISTE Standards to help propel teachers past the beginning stages of tech integration. In March 2019, she decided to pursue ISTE Certification not just for herself, but for a cohort of more than forty interested educators. She hosted the training and set up a Slack channel for support as they made their way through the self-paced online work. Now she uses what she learned to help teachers examine their digital lessons and activities through different lenses to determine the best way to achieve their learning goals.

"I get excited about teachers trying new things," she says. "It gives me a window into a lot of different classrooms. I see how different teachers run their classrooms, and I see the best practices emerge as we start to understand what works well. It fuels me, makes me want to try something new."

As someone who has used technology to teach both students and teachers, Guyon has developed the following best practices of her own:

1. Learn Alongside Your Students

When Guyon first led her sixth graders through Hour of Code, she had never written a line of code in her life. They learned it together—and discovered a hidden expert in the room. An English language learner who rarely spoke to anyone became the day's hero as he walked around the room and helped his peers troubleshoot their code.

By becoming a co-learner, teachers empower students to take charge of their own learning while also modeling the habits of a lifelong learner. For educators who feel outside of their depth with technology, simply saying, "Let's learn it together," can lead to powerful experiences.

A lot of times it's just a matter of getting out of the student's way.

2. Think in Mini Lessons

Students don't get better at something by listening to a teacher deliver a lesson. The real learning happens once they start practicing the skill. Breaking subjects down into ten-minute mini lessons followed by an activity or practice period helps make learning more digestible creates an opportunity to try out new information right away.

3. Make Connections

Learning to code may not seem like an obvious fit for an English classroom, but Guyon quickly saw its value—and didn't hesitate to point it out to her students.

"Kids never want to rewrite and fix their work, but when they have a robot on the floor and it's not moving, they're going to rewrite until they get it right. Now they see the purpose of editing—as long as you bridge that correlation for them. I'd tell them to think of it like code, and then it was a lot easier to get them to edit their essays."

4. Allow Time to Explore

When teaching a new technology to either students or fellow educators, Guyon doesn't deliver much instruction beyond how to log in. Then she sets them free to explore. Once they've had time to play around with the app and figure out how it works, she starts building the lesson from there.

"A lot of times, it's just a matter of getting out of the student's way," she says.

This is an updated version of a post originally published on June 24, 2020.

Nicole Krueger is a freelance writer and journalist with a passion for finding out what makes learners tick.

ARTICLE 2

Use Research-Based Approaches to Choose Edtech Apps

By Dr. Liz Kolb

Evaluating and choosing educational applications for school learning has often been compared to the Wild, Wild West. Yet selecting the "just right" app for teaching and learning to meet learning targets is truly a science and should be done carefully, using evidence-based decision-making grounded in the learning sciences.

My twenty-plus years in education and education technology have allowed me to develop a cadre of resources and tools to evaluate an educational application based on research and the science of learning, rather than choosing tools that are shiny, popular, or feel good. Beyond the classroom, I have also found that I need to support parents and caregivers in understanding how to use research-supported strategies with educational apps at home. Here's a look at the resources I use to select and evaluate educational apps using the learning sciences.

Tools for Evaluating an Educational App

Triple E Evaluation Rubric for Educational Applications (bit.ly/3dcqNoV) This rubric is derived from the Triple E Framework Rubric for lesson design with technology tools. The Triple E Framework has been found to be valid and reliable for designing lessons with technology to support learning outcomes. The Educational Applications rubric brings together many research-based pieces on how to evaluate educational applications into one simple-to-follow rubric.

What Works Clearinghouse (ies.ed.gov/ncee/wwc) Since an educational application's website often has biased research, it is important to find unbiased research. In order to know if valid and reliable studies exist on an educational application, the What Works Clearinghouse should be your first stop! The clearinghouse is run by the U.S. Department of Education and critically examines any research on educational applications to see if the research is valid, reliable, and unbiased.

AIMS-E Tool (bit.ly/3dbX6nK) If you are looking at educational apps for younger children, I highly recommend the AIMS-E tool created by Screensense. This is a great rubric for determining if an application will support the pedagogy of learning for children ages two to about six.

KidMap (joinkidmap.org/digchecklist) It is important to consider diversity and equity when evaluating a digital tool for learning. Kidmap has created an easy-to-use checklist for educators to make sure their new application is inclusive and equitable.

Digital Promise Product Certification (productcertifications.digitalpromise.org) Digital Promise has recently developed a certification process for educational applications to make sure they regularly address the learning sciences, support diverse learners, and ground product design in evidence-based research. Tools that have earned the certification are worth a look!

iKeepsafe Data Privacy Certification (ikeepsafe.org/products) The iKeepSafe website has compiled a list of educational applications that are FERPA-, CSPC-, and COPPA-compliant. This allows a school to know which educational applications have built-in student privacy security measures.

Tools to Help Pilot Edtech Apps

Rapid Cycle Evaluation (bit.ly/3d9pMy0) Mathematica developed this very useful tool that allows teachers to easily create a pilot study on an educational application with data-driven outcomes.

Digital Promise EdTech Pilot Framework (edtech.digitalpromise.org) Digital Promise has developed a process to help districts determine if a new digital tool meets the needs of teachers and students.

A Tool to Help Educators Provide Strategies for Parents and Caregivers

Tap, Click, and Read (tapclickread.org/takeaction) The Tap, Click, and Read website, developed by Michael Levine and Lisa Guernsey, is a wonderful resource for educators and parents. The website focuses on how young children and their caregivers can best engage with media and educational applications.

This is an updated version of a post originally published on October 21, 2021.

Liz Kolb (@lkolb) is a clinical associate professor of edtech at the University of Michigan in Ann Arbor and is the author of four ISTE books, including the best-selling *Learning First, Technology Second* (2017) and *Learning First, Technology Second in Practice* (2020).

ARTICLE 3

Focus on UDL When Using Classroom Technology

By Jennifer Snelling

Educator Chris Bugaj remembers when his daughter was learning about insects and the environment as a second grader. One day, the assistant principal came to school dressed in a beekeeper's outfit. He told the students he was an amateur beekeeper and asked for their help saving his bees because they were dying.

Bugaj, author of *The New Assistive Tech: Make Learning Awesome for All*, recalls that his daughter came home that day ready to save those bees. She and her fellow students did their research and picked a project that was appropriate to their skills and abilities. Some made posters about planting clover, others made verbal presentations on pesticides, and a few recorded podcasts with an entomologist.

Flexibility was an integral part of the project because all students were able to use their individual talents to solve a problem. They were able to research by reading books, listening to information using a text-to-speech app, or searching online using a program displaying the words with lots of white space to make it easier to read.

Contrast this with the more typical way of approaching inclusion: accommodation.

The instruction usually begins with something like asking students to turn to a certain page in a book, already putting kids with dyslexia and other visual impairments at a disadvantage. Often, a student with a disability may be physically in the classroom, but seated at the back table with an aide. While the rest of the class works on the assignments, the aide adapts the lesson for this student.

Accommodation "is not really about authentic inclusion," says Bugaj, "but rather a way of getting their inclusion numbers up. Instead, imagine if they can use technology to research in whatever way works for them, as well as present that knowledge in a way that highlights their abilities. We need to challenge teachers and administrators to think about authentic inclusion, to think about design instead of accommodations."

> ***If you design your classroom to meet everyone's needs, anyone can participate.***

What Bugaj is describing is Universal Design for Learning (UDL). The traditional model of inclusion identifies students based on labels or diagnoses and makes accommodations. UDL, on the other hand, starts with acknowledging the variability we all have in learning preferences and motivation.

Why not design classrooms and lessons that allow for flexibility in the approach to learning and method of demonstrating that learning? Isn't that truly an equal opportunity for success?

UDL has three principles:

1. Multiple means of representation, meaning that information is offered in more than one format, such as video or hands-on learning, in addition to textbooks.
2. Flexibility in action and expression, meaning kids have multiple ways to interact with the material and demonstrate knowledge, such as an oral presentation instead of a pen-and-paper test.
3. Multiple ways to tap into student passions. Students can choose from assignments that are relevant to their lives.

The bee project is an excellent example.

If these principles sound familiar, it's because they're reflected in the Empowered Learner Standards in the ISTE Standards for Students.

"If you design your classroom to meet everyone's needs, anyone can participate," Bugaj says. "I look at where we were twenty years ago. Whereas before we had to fight to get one computer for one kid, now we're living with a plethora of technology and are on the cusp of changing the design of our instruction."

More Than Differentiation

Teachers are familiar with differentiation and accommodation, but UDL asks teachers to design for students they haven't yet met. Doing so can benefit a school or classroom year after year with a built-in system to address the needs of English language learners, the emotional needs students bring into a classroom, and the needs of students identified as gifted and talented. Many schools are already doing something similar using multi-level tiers of support, project-based learning, or personalized learning.

Authentic inclusion is the next step.

"UDL is about designing for the disability you will have in your classroom at some time. While a wheelchair is easy for anyone to see, students can struggle with less readily identifiable issues, such as attention deficit disorder, a learning disability, or diabetes," says Mindy Johnson, director of digital communication and outreach at CAST, a nonprofit organization that studies and promotes UDL.

Teachers often design for the students they see in front of them, but they may not be seeing the whole student. Accessibility is the welcome mat to learning. UDL goes further by taking into account the way the brain is structured and the networks in the brain that help us learn.

The Every Student Succeeds Act (ESSA) of 2015 was the first time the U.S. K–12 education law defined and endorsed UDL. In fact, UDL is referenced numerous times throughout the bill, and states are encouraged to design assessments using UDL principles, award grants to local education agencies that use UDL, and adopt technology that aligns with UDL (S.1177, 2015).

UDL may have started out as a way to address the needs of students with disabilities, but the goal is to help all students become expert learners, beginning with providing a flexible environment. UDL guidelines fit easily into ISTE Standards because both are

about designing for learner variability. UDL provides a road map for developing learner-centered, tech-enriched experiences.

Bugaj suggests backward mapping to understand which tools will be most universally used in a school. For example, start by pulling out all the accommodations for individualized education programs (IEPs) and sort them by frequency. Determine which technology students use most for accommodation. Then use that as a road map to make those accommodations available for everyone. Do this every three years, and over time, your school or classroom will become increasingly universal.

UDL provides a road map for developing learner-centered, tech-enriched experiences.

Closing the Achievement Gap

Like many school districts, the Groton-Dunstable district in Massachusetts had an achievement gap between students with disabilities and the rest of the student population. The annual progress report and performance index (PPI) for students with disabilities was 42, thirty-three points below the 75-point target for this population. To put this number in context, the "all students" group scored 89 points. In 2014, the district implemented UDL programming using systemwide professional development, planning time, and visioning to create an action plan throughout the district. By 2015, the PPI score for students with disabilities was 64. By 2016, the score rose to 79. (Massachussetts Department of Elementary and Secondary Education, 2017)

"Our achievement gap was a chasm," recalled Kristan Rodriguez, who was superintendent at the time. "As a colleague often said, 'If the only students who are successful in our schools are those who arrive ready to learn, we have failed miserably.' "

One of the biggest challenges students face is when a medical condition keeps them from attending school. Fairfax County public schools has found a technology-based solution that allows for real inclusion, even when a student can't physically be there.

Traditionally, homebound students have relied on a tutor coming to their home once a week. Now, homebound students can attend classes every day with the help of the

Fairfax double robot. The wheeled robot with a screen and camera allows Alex, a junior at Chantilly High School, to collaborate on group projects and virtually interact with her peers, despite a medical issue that keeps her at home. Alex has thrived, maintaining excellent grades in her honors class.

We Have the Tech; Now We Need the Change

UDL is a mindset and a practice—a pedagogy-first stance. While it can be implemented without technology, the mindset can be optimized through thoughtful use of assistive tech.

Many technologies began as ways to assist disabled students, but have become useful for everyone. For example, touch screens were originally designed for people who couldn't use keyboards or a mouse, but now everyone can use them. Voice dictation and word prediction are also examples of technologies that were designed as accommodations but are now making things more accessible for a variety of students not identified as special needs.

Most schools have access to tools and don't even know it.

Companies like Microsoft, Apple, and Google recognize that if they build their products with accessibility in mind, they meet the needs of everyone. For example, iPads have a text-to-voice feature that can be turned on in Settings. Microsoft has Immersive Reader, which adds spaces for those with dyslexia or visual impairments. Chromebooks have a dark mode for the visually impaired.

Captioning is another example. Some schools have elected to be "captions on," meaning videos always routinely have closed captioning turn on. Some schools ask families to do the same when they watch television at home. This normalizes captioning for all students and helps with reading and language skills.

"The big change is that we don't have to rely on more specialized solutions with technology," says Luis Perez, technical assistance specialist at the National Accessible Educational Materials Center at CAST. "Accessibility is built in. That also removes some of the stigma from the tools that has been imbued in the technology from a historical perspective."

Assistive Tech Benefits All Students

Madison Datz, a fourth-grade teacher at Horace Mann Elementary in Oak Park, Illinois, began designing her classroom around UDL last year. She used to think of assistive technology as a tool specifically for students with an IEP or a 504 plan, but now sees the technology as benefitting all her students.

With the help of an assistive technology coach, Datz's entire class learns to use assistive technology such as Co:Writer, an app with word prediction. As a student begins to type a word, the app suggests a word as an option, and the student can click on the one they want. The app also reads the students' sentence back to them so they can make sure it is what they intended to say.

Datz says Co:Writer is helpful for struggling spellers as well as English language learners. The assist from the app lets students more accurately represent their knowledge, rather than limiting themselves to words they already know how to spell.

Datz recently covered a reading standard that asked students to describe a character, setting, or event from a book they were reading. She gave the students options to be creative in how they demonstrated their understanding.

One student wrote a song about a character, videotaped himself singing it, and showed it to the class. Another student made a table using Google Docs and gave each of the characters a grade, along with an explanation of their ranking. A third used Explain Everything, a virtual whiteboard, to set up an auction with items from the setting. He priced objects and created symbols for the story, designed graphics, and typed out responses. When he hit "play," the class could listen to his auction.

> ***Oftentimes, tools that are created to compensate for a disability are good for the general population.***

"Kids want to do well, but sometimes when they have barriers, the subjects can become frustrating. They can succeed in content knowledge when you take away the barrier of reading or writing responses," Datz says. "Technology makes the possibilities endless."

Take apps that read back what students write to help them identify errors. Snap&Read lets students choose a dictionary for a particular topic—say, ancient Egypt—and provides vocabulary related to that topic. English learners can type a word in their native language, and the app will provide the English word.

"We know that all our students have a lot of variability in the way they learn and how they can show us what they're learning," says Sheri Lenzo, the assistive technology coach who introduced Datz's class to the apps. "Oftentimes, tools that are created to compensate for a disability are good for the general population. We don't want our students who need those supports to feel singled out or self-conscious, so we just make it integrated as part of the regular school materials and teachings."

Lenzo is helping teachers throughout her district apply assistive technology literacy-support tools, as well as leading workshops for parents on how to use the tools. She says it's often difficult to identify the student with a 504 plan in these classrooms.

As with Datz's class, Lenzo gives everyone the demonstration, then turns them loose. She says it's often the students with the IEPs who have used the tech before who help their peers learn a new skill.

"UDL is a great equalizing platform," says Lenzo. "Students who are good writers, write. Students who use the keyboard, do that. For many students, UDL is a game-changer."

This is an updated version of a post originally published on March 23, 2020.

Jennifer Snelling is a freelancer from Eugene, Oregon, who writes for a variety of publications and institutions.

EDUCATOR TIP

Three Resources for Implementing an Inclusive Language Classroom

The UDL framework addresses both learner variability and instruction flexibility in order to give all an equal opportunity to become "expert learners." Here is a selection of resources to be used by both learners and teachers for second language acquisition.

When it comes to providing options for presenting any digital content displayed, Read&Write for Google Chrome is a versatile literacy support tool. Its main feature—a word-by-word highlighting read-aloud with voice selection, language variety, and speech speed settings—enables connections between spelling and sounds, and fosters phonological awareness. It promotes cross-linguistic understanding through translation, text, and picture dictionaries. Highlighters give the ability to group content and make explicit syntactic and semantic relationships.

Esther Park, @MrsParkShine, an instructional designer and eLearning developer, offers on her website mrspark.com free customizable digital templates to support executive functioning, a sine qua non to student success and learning. Learner-to-learner interaction is guided by group dynamics, while learner-to-teacher interaction is facilitated with "Levels of Understanding" and channels of communication alternatives. The website provides digital options for learners to organize ideas and create notes such as the "Think, Pair, Synthesize Talking Placemat," "Main Idea & Details," and "Digital Warm-Up Notebook" templates.

Finally, flippity.net is an easy stop on the planning road to increase interest and motivation, reinforce collaboration, stimulate problem-solving, and give feedback. "Matching Games" or "Flashcards" instantly gamify vocabulary retrieval practice. "Manipulatives" and the "Randomizer" consolidate parts of speech knowledge and sentence building skills. The "Virtual Breakout" turns any question into a quest. And along the way, the "Badge Tracker" or "Leader Board" incentivizes learners to achieve their goals. Those are ideal go-to activities to meet students where they are.

— **Sarah Verdoïa** (@SarahVerdoia), French teacher, Dubai American Academy

ARTICLE 4

Four Tips for Creating Awesome Classroom Videos

By Jerry Fingal

As a new teacher, Josh Stock often found himself stretched thin as he raced around his classroom trying to answer student questions.

"I was bouncing all around the room, and it was getting overwhelming trying to keep up with that," he said. "I needed to find a way to multiply myself."

In a sense, he was able to do just that using video. "When I couldn't get there right away to help a student, I could say, 'Hey, why don't you watch this video really quick, and if you still have questions, I'll help you.' "

That was the start of what has grown into a big part of Stock's teaching toolbox. He has steadily expanded his use of video in his sixth-grade English language arts classroom at Santa Fe Trail Middle School in Olathe, Kansas. He uses videos to guide his students through lessons, answer frequently asked questions, deliver daily classroom announcements, and communicate with parents.

His success with video has also led him to teach other educators how to use it. Those efforts spurred him to write a book on the subject, *Awesome Sauce: Create Videos to Inspire Students, Engage Parents, and Save You Time*.

Everything Stock does with video relies on technology, from his iPhone to create them to a digital classroom platform to share them to the devices his students use to watch them. But the underlying goal is at the heart of teaching: spending quality time with students.

"My goal is to have as much one-on-one time with students as possible," he said. "I think the best teaching comes from those moments when you can sit down one on one and actually process through things with a student."

One of Stock's first uses of video was to deliver daily classroom announcements. He teaches five periods of sixth-grade English language arts, so those announcements were repetitive.

"I started recording those, and I realized that it freed me up to check in with kids. I thought, 'Okay, this helps me in this spot. Where else could I add a video that will help free me up to work one on one with individual students?' "

Over the years, he has looked for opportunities to use video and has built a library of videos that he uses from year to year.

Stock is comfortable in front of the camera. He's been making videos since he was in middle school, and he's now in his twelfth year of teaching. But he says any teacher can incorporate videos.

"I think that the style of video depends on your personality. I can record a video with no script, just because that's my personality. Other people want to write down a script. And they want to practice it a few times. It's just what you're comfortable with as far as your preparedness level."

For those who aren't comfortable on camera, screencasting is an option. That involves recording your voice over images on your screen.

"There are ways for each personality type to create video," Stock said. "It's just finding what works best for you. "

For those interested in creating videos, Stock offers these four tips:

1. Just Do It!

The biggest stumbling block for teachers in trying video, Stock says, is the feeling that they have to be perfect, with smooth transitions, cool music, and no "Ums" or "Uhs." "My thought is, the video is never perfect," he said. "It doesn't matter how perfect I think it is, the kids will pick out things that are wrong about it. I think if teachers just pull out their phones and try it, they'll find ways it can help in their classrooms." Stock has a three-take rule: if he doesn't get it exactly right by the third take, he goes with what he has. Also, Stock advises keeping editing to a minimum.

2. Keep It Simple

A good place to start is with daily announcements because they are straight forward and low stakes. Next, record repeated content—those lessons that you deliver over and over with little deviation. For example, Stock will make a video about a common

grammar error he sees in assignments and post a QR code in the classroom that students can scan to get access. Another easy starting point is to just read an assigned book aloud. Stock finds that helps struggling readers with fluency and forces strong readers to slow down and focus on comprehension.

> ***I have a lot of parents who come in for parent-teacher conferences, and they feel like they know me because they've seen me talk a few times.***

3. Create a Personal Connection

In addition to the weekly text newsletter he sends to parents, Stock occasionally includes a video that summarizes what's going on in class. He also makes videos to introduce himself to his new students before school starts in the fall. In both cases, Stock's appearance on the screen creates a personal connection that's impossible to convey in a text newsletter.

"I have a lot of parents who come in for parent-teacher conferences and they feel like they know me because they've seen me talk a few times. Making that first connection is a huge help."

4. Model YouTube Personalities

"I've got two kids, and they spend a lot of their time watching YouTube," Stock said. "I started watching what they're watching. It's interesting because it gives me an idea of how to frame my videos. They're usually pretty rapid fire, and there's usually a lot of transitions between videos. I don't incorporate all of that, but it gives me an idea of what the kids are used to watching."

This is an updated version of a post originally published February 20, 2020.

Jerry Fingal is an ISTE blogger from Eugene, Oregon.

EDUCATOR TIP

Getting Started with Video

You do not need to be a filmmaker to create videos to use with your students. Actually, they prefer the more raw versions with less edits because it is more similar to what they see on social media. Some tools to get started are Flipgrid, Screencastify, and WeVideo. These tools are all web based and widely supported. Videos can duplicate the teacher to free you up, but can also be used to give students another way to access content. For a great explanation of how to use videos, check out the Edutopia article "Modifying the Flipped Classroom: The 'In-Class' Version" by Jennifer Gonzalez (edut.to/3rop9sF)

— **Moriah Walker** (@WalkerWizardsPJ), innovation specialist at Plains Junior School, Liberty Township, Ohio

Reflection Questions

1. How do you practice authentic inclusion in your classroom instruction and design? What ways can you challenge yourself to think about authentic inclusion as being more about design than accommodations?
2. How can your lessons and learning experiences allow for more flexibility?
3. Looking at the three principles of UDL, which one(s) do you feel you incorporate in your instructional practices? Which one(s) would you like to incorporate more?
4. What is your biggest stumbling block to creating/using videos as part of your regular instruction? How can you overcome that stumbling block?
5. What topics or standards for your content do you think lend themselves well to using video instruction?

Discussion Starters

1. What process does your school or district have in place to evaluate edtech apps? How does this process align with research-based practices?
2. How do you evaluate edtech apps for your own classroom?
3. How do authentic inclusion practices go beyond differentiation and accommodations?
4. How can edtech support UDL practices for classroom instruction?
5. What resources are available in your school or district to help support video creation? What resources would you like to have available?
6. What are some ways teachers can make videos engaging for students?
7. In addition to video instruction helping to duplicate yourself for students, what are some other benefits to using this strategy?

Reflection questions and discussion starters contributed by **Tiffany Rexhausen** (@TRexhausen), eighth-grade language arts teacher at Hopewell Junior School, West Chester Township, Ohio.

Resources for Further Exploration

Five Tips for Creating Awesome Videos for Your K–12 Classroom (youtu.be/XtaHzU3Wge8) In this video, Josh Stock, ELA educator and author of *Awesome Sauce: Create Videos to Inspire Students, Engage Parents, and Save You Time*, shares tips for creating awesome videos for the classroom.

Triple E Evaluation Rubric for Lesson Design (bit.ly/3DhyGUC) This form is a tool to measure how significantly the technology effects the student-learning goals based on the Triple E Framework. Once you submit your results, you will be able to see your individual result totals with a breakdown of each question.

Inclusive Learning 365: Edtech Strategies for Every Day of the Year (iste.org/Inclusive365) Designed to be read one day—and page—at a time, this book from four inclusive learning experts offers 365 strategies for implementing technology to design inclusive experiences.

Learning Unleashed Podcast: "Authentic Learning: Making Learning Meaningful and Memorable" (bit.ly/3Manj6L) In this episode of the Learning Unleashed podcast, author Kristen Harrington shares how to empower students to take charge of their own learning and provide authentic opportunities for them to demonstrate their knowledge through projects.