Screen time in the balance
It's what you're doing that matters most

By Linda A. Estep

There's never been a better time to be a K-12 student.

Take, for instance, ISTE member Douglas Kiang's high school computer science class in Hawaii, where he challenged a team of 20 students to design an underwater office using the popular online game Minecraft. The exercise required collaboration, planning, online research, problem-solving and teamwork. The students' final plan was brilliant, according to Kiang, and in the process, students with natural leadership skills emerged, as did those comfortable in putting the pieces in place. The students learned firsthand the importance of having both types on a team.

Then there's The Ellis School, an all-girls school in Pittsburgh, where the former director of its Learning Innovation Institute, Lisa Abel-Palmieri, Ph.D., said remixing class space and class time with blended learning and the flipped classroom approach created a whole new world. After using the Gallop StrengthsFinder tool to pinpoint individuals' skills, students are paired up with real clients in the city to deliver on projects. The result goes far beyond reports and some tweaks to places of business. "They build empathy for each other, learn how to fail fast and take calculated risks, they gain the skills to be innovators and change agents," described Abel-Palmieri.

ISTE member Pam Simon, who co-founded a STEM-based after-school program in Portland and Eugene, Oregon, called Fidgets2Widgets, incorporates technology in a fun and fast-paced environment for children ages 9-14. Simon and her business partner, Sydney Ashland, felt that a child's creative spark diminished as they progressed through school. They decided that instead of complaining to the schools, they would develop an after-school environment that would reignite the flame of creativity and curiosity.

"As an educational tool, Minecraft is a wonderful platform for learning while having fun," she says. "You have to have mathematical understanding to build sound structures. Architecture and design features allow for innovation ... Minecraft affords myriad opportunities to do just that. A child who is motivated and challenged, allowing the innate curiosity to fuel their interests, will most certainly use these skills in a future career."

Of course, to achieve each of these milestones, education relies on a screen.

Time to chill out

Screens, the chestnut goes, are not good for children. Today's students spend too much time staring at computers, tablets, smartphones, gaming consoles and televisions and not enough time participating in physical activity. Concerned parents are often the first group to bring up this

objection, but teachers and even some students will argue against "excessive" screen time at school board meetings and on social media.

In some places, the debate is jeopardizing technology initiatives in education.

The good news is, research is refining that stance. In May 2015, the RAND Corporation and PNC Bank's program PNC Grow Up Great hosted a one-day forum for advocates, educators, researchers, policymakers, funders and parents to discuss this notion of screen time. Their conclusion: the narrow focus on screen time should give way to a more comprehensive definition of developmentally appropriate technology use by young children, one that considers *what* technology and content are being used, *how* they are used, and *why* they are used.

After all, the original screen time research was built around watching television, not interactive devices like tablets. So the fact that these devices are this generation's learning tools is, perhaps, the most powerful argument.

Karen Richardson is an education technology specialist and an ISTE member active with the Virginia Society for Technology in Education, ISTE's affiliate in Virginia. She also is the owner of Ivy Run, a company dedicated to showing educators how to integrate digital technologies in the classroom. In a blog published by ISTE in 2014, she wrote, "While I will defend reading to my dying day as a wonderful way to learn and engage with the author, it is not a particularly interactive or hands-on way of learning. When I was introduced to a new interest via a book, pursuing that topic meant dragging out the encyclopedia or a trip to the library."

Today, such pursuit can be handled with a search engine and a mouse click or touchscreen.

"I do worry about kids on an iPad all day long who never look up," Richardson notes. She believes teachers and parents must be models for their students and teach the tenets of digital citizenship. She also stresses to teachers that just because a certain technology is present in the classroom doesn't mean it must be used every day.

Peter Gray, a research professor emeritus at Boston College and the author of *Free to Learn: Why Unleashing the Instinct to Play Will Make Our Children Happier, More Self-Reliant and Better Students for Life,* has spent much of his career studying child behavior. He contends that, when asked what they liked about playing video games, most children talk about freedom, self-direction and competence. Indeed, a study commissioned by IBM concluded that the leadership skills exercised in many interactive, role-playing video games mirror those required to run a modern company in the real world, just as Kiang's students demonstrated in their project-based assignment.

"It doesn't surprise me that children are attracted to computers," Gray adds. "Kids play obsessively with the tools of their own culture, whatever is available to them, whether it is a computer or bow and arrow."

Even the American Academy of Pediatrics (AAP) has softened its guidelines regarding screen time.

Their original guidelines recommended no screen exposure for children younger than 2 and a limit of two hours a day for children over the age of 2. Today, AAP recognizes that while media can have both positive and negative effects, children are doing what they have always done, only in another environment. As a result, they no longer advise age-specific screen time limitations and acknowledge that content is more important than the platform or time spent with media.

ISTE Standards fit

In her ISTE blog, Richardson describes the importance of having a “balanced approach to the world,” noting that time with technology, nature and tools is one way to achieve balance. For instance, if she wanted to teach someone about the life of a beekeeper, she could use her phone as a camera for demonstrations, a paper and pen for personal journaling and then a digital journal to share with others also interested in beekeeping.

“The ISTE Standards focus on teaching and learning in the digital age and how digital tools can support that work, and I think it is essential that students are given opportunities to engage with those tools in meaningful ways,” she explains.“If you are going to have a phone in your pocket at all times, you should know how to use it to learn, create and share. Rather than focusing on doing research or completing assignments, they should see how to use them to support creativity and productivity.”

For example, Nannette McMurtry, an ed tech specialist with the Boulder Valley School District in Colorado and an ISTE member, uses nature and technology to foster creativity in children. Her own young daughter hones her storytelling skills by hiking with a mobile device and documenting her adventure using background music and narration in a video to share with faraway grandparents.

“It allows her to tell a story in a way she couldn’t tell otherwise. The filming adds another layer. To me, it is not about screen time as much as it is about using a tool to accomplish or create something,” McMurtry explains. “It’s what you are doing with screen time that matters.”

McMurtry’s role in her district is to coach and mentor teachers and district personnel, but she also taught high school students, and used technology in a way of bringing her classroom closer together. She created an online forum for students to discuss assignments that would be covered the next day in class. Students who showed shyness in class found it more comfortable to disagree with posted opinions online. It was empowering, and those students began to engage more comfortably in face-to-face discussions the next day. “It was a confidence builder,” she says.

She believes parents and teachers must establish a relationship with children and their use of technology.

As Richardson puts it, "Just giving kids and iPad and not interacting is not helpful. Maybe the secret is, it is too early to blame technology for everything."

Screens and family time

Dion Lim is the founder and chief executive officer of NextLesson, a company he describes as "engaging students in problem-solving through topics they love." Here, a team of teachers develops lessons and projects for K-12 classroom use, serving more than 50,000 teachers and 2 million students nationwide. Lim refuses to believe screen time is an evil force. At the same time, he views technology as a privilege rather than an entitlement.

"I think of myself as an educator, not a policeman. When my daughter got a smartphone I told her, 'Convince me it will be beneficial.' In our family we talk about how screen time impacts family. At the dinner table and traveling in the car, there is no phone usage at all." There are occasional exceptions such as when someone in that environment wants to look something up. The family votes to decide if it is permissible, and the vote must be unanimous. Lim is the father of 13-year-old twin daughters and a son, 11.

Lim sees technology falling into three distinct categories:

Creational — Allows a student to meet a goal of creating something original and consequently gives the student creative confidence.

Functional —A practical use, like writing a letter or conducting research. It is the modern version of going to the library.

Recreational —Activities such as reading sports scores on ESPN or playing a video game for relaxation. "There is value here, too. The challenge is when this piece of the pie becomes the whole pie," Lim adds.

Linda Estep is a former reporter for McClatchy Newspapers and was the public information officer for a large school district in California. Today, she works as a freelance writer covering education policy.