

<p style="text-align: center;">Interview Transcript (Selected Portions)</p>	<p style="text-align: center;">Analysis</p>
<p>Interviewer: As a distance learning teacher of math and sciences, which types of technology have you used?</p> <p>Teacher L: A graphing calculator would be the standard in any classroom, so because we're an online school I also found several online graphing calculators for students who do not want to buy a graphing calculator. I have always used Skype, used Elluminate a bit for the whiteboard but it was a bit more cumbersome. Zoom works actually quite well because I can not only have a fact-to-face and I can hold up a diagram, but there is also the whiteboard option so I can draw on there. There are videos and such that are online. One thing that I haven't used, but I would like to use but it's challenging, and to be honest because I have so many courses I haven't been able to look into it as much, but there are online labs that are for chemistry and physics, but I haven't implemented them as much as I would like. I feel like I haven't implemented a lot.</p> <p>Interviewer: Of the technology you have used, which types have you found the most effective and efficient in your teaching and in your students' learning?</p> <p>Teacher L: Probably the whiteboard situation, however that looks, just because the ones who are struggling need that more visual back and</p>	<p><i>Educators use a combination of instructional technology used to present knowledge to students, as well as interactive technology used to actively engage students with the learning. Instructional technology may include such tools as videos, white boards, document cameras or online lesson instructions. Interactive technology sometimes requires instructional time to teach how to use, but can also be inquiry based as students interact as self-educators. It is not unusual for teachers to be self-educating themselves along with their students as new technologies are introduced and implemented. Some types of interactive technologies include PhET simulations, Kahoot online quizzes, The Hour of Code and Prodigy.</i></p>

forth. Some of them will email me a question and I'll write out this great big explanation and email them back and that's totally fine, but others are doing the headlights, I need more. So that back and forth that we can actually do with the whiteboard to go through the problems definitely helps.

Interviewer: How have you learned to use the types of technology that you use in your teaching and with your students?

Teacher L: Through trial and error. You just need to jump in, try it and ok this works. If you have a question you can ask someone who maybe knows it better.

Interviewer: What characteristics (technology related or not) does your ideal learning space consist of when teaching math or science?

Teacher L: I guess just ease of use, easy to use, easy to understand. Whether it's a lab or a thing like Zoom that it is easy for them to open it and see what they need to do and easy for me to implement. Initially with Canvas, the math just the way it was set up a lot of them were having issues putting the right thing in the right place and knowing how to use it. Next year, I need to start out differently

Trial and error is a common response when an educator is asked how technology has been learned as a professional, along with inquiring from a more knowledgeable colleague. Professional development workshops are also an option. All of these ways of educating oneself in technology use require initiative, willingness to take a risk and perseverance. Teacher T, interviewed by Catherine Sverko shares, "Teachers need to take ownership of what they need to learn ... we are not apologizing that we need to have 21st Century Learning in our classrooms. That technology is not an inconvenience or optional or block four on Friday. This is part of our everyday learning." Brianna from Dana Bjornson's interview states, "[Y]ou just have to jump in. We want our kids to take chances and be brave, so you have to take chances and be brave."

with the students. Let's take some time to learn to use this well.

Interviewer: Do you feel that technology enhances your students' learning experiences in science and math? Why or why not?

Teacher L: I think it could enhance, I don't think mine the way it's going right now enhances it, but this is my own shortcoming that I need to find or spend time researching and getting those programs or finding those websites that would do more. When I think of technology enhancing learning, I think of those things that you can send the student to help them in a more practical way. Ultimately that is what I would love to add more of to the courses.

Time is a valuable resource for educators. Incorporating technology demands time invested in the selecting, learning, implementing and assessing purposeful technology tools and resources. Teacher L found the challenge of time in finding appropriate technology, while other educators found it challenging to acquire time to insert technology instruction into the daily or class schedule. There is also the concern of the time considered wasted when technology glitches, and the time required to learn a new technology for both educators and students.

Resources that Educators are using successfully with their students:

- [Grand Prix Multiplication](#)
- [Math is Fun](#)
- [Prodigy](#)
- [Algebra Tiles](#)
- [Raspberry Pi](#)
- [The Hour of Code](#)
- [Minecraft](#)
- [Makey Makey](#)
- [Kahoot- online quizzes](#)
- [PhET Simulation](#)
- [Canvas](#)