Math teachers who spend any time on Twitter likely know Caitlyn Gironda’s name. An active member of the #MTBoS community, Gironda loved the support she found online for her teaching—especially as she took on the challenge of designing an honors precalculus blended-learning class at Central Cabarrus High School in Concord, N.C.

Paid to create the course in the summer of 2014, before the district launched its pilot blended-learning courses, Gironda prepared what felt like a challenging, innovative curriculum. Because students would be in the classroom with her only every other day, she relied on tech tools she thought would engage them: interactive videos, adaptive quizzes using “ALEKS” software, online collaborative assignments, and guided activities on online graphing calculators.

Then she asked her students for feedback.

“I would like more worksheets. I feel like I, and probably some others, would work at a faster pace and get a lot more out of practicing a couple dozen problems than spending whole class periods on an activity involving just a handful of problems.”

“More work on paper. Less ALEKS. I really don’t like ALEKS.”

And she started to rethink things: Why am I doing this?

“I knew this was an experiment,” Gironda said, looking back after two years of teaching the blended class. “I knew they were trusting me. I felt a lot of responsibility. I asked for feedback and they were honest. But it’s what pushes me. I needed to see what they needed. So feedback from them became a critical element in shaping the course.”

Central Cabarrus was one of several Cabarrus County schools to create blended-learning teacher (BLT) positions as part of creating an Opportunity Culture, in which schools extend the reach of excellent teachers to more students, for higher pay, within regular budgets. Gironda could now reach 50 precalculus students in a semester versus about 35 (who were all in one large class) in previous years, because half the class was with her on “A” days (Monday/Wednesday/every other Friday) while the 25 “B day” (Tuesday/Thursday/every other Friday) students worked at home or in a school computer lab. For doing this, she earned a pay supplement of $3,500.
After the pilot year of blending one class each of English, Spanish, math, and science, Central Cabarrus added a blended history class, made blended biology mandatory for sophomores, and expanded its other classes, having seen that “all students grew” on state value-added measures, Gironda said. Her precalculus students exceeded expected growth, according to state results, in both 2014–15 and 2015–16, despite receiving less face-to-face time with her in blended-learning classes.

“Blended learning puts you in a growth mindset. It pushes everyone out of their comfort zone,” she said. “I’m much more flexible as a teacher and analytical of my own teaching, in and out of the blended-learning classroom.”

LEAPING INTO BLENDED LEARNING

In-class time

“Because I am such an inquiry-based teacher, I hate lecturing. Any day where I have to lecture, I’m pretty miserable,” Gironda said. “It’s just not how I engage with kids, and a lot of that goes away in the blended class, because they can get the basic idea at home, and then we can start applying and diving into it.”

Gironda “flipped” her classroom, having students watch videos of her instruction on their off days. “That allows in-class time to focus on collaborative learning. I think the people doing the talking are doing the learning. Any lecture that I have to do, I try to keep outside of my classroom.”

Because a blended class limits her face-to-face time with students, Gironda said class time feels especially precious.

“That is time where the kids are working in groups doing problem solving, doing inquiry-based activities to really dive into content, and trying to challenge themselves and challenge each other. They really like that. I think it’s an adjustment for kids—a lot of students are used to road-map instruction and it breaks my heart, but it’s what they’re used to—and so, when they don’t see me until precalculus and all of sudden I’m challenging them to problem-solve and to challenge each other, and when they ask me I say, ‘I don’t know, you have to ask your group,’ they don’t like that.”

But students quickly got used to it, she said—and she got used to giving up control, no longer simply giving them the information. Flipping also “opened up time for us to do different types of activities in class. I never try to take on a project for the sake of saying ‘we did a project,’ but are we going to spend time doing hands-on activities that we normally wouldn’t have time for? Absolutely. Are we going to spend time building models? Yes.”

Out-of-class time

All students could leave school on their off days from the class, but they also all had access to a monitored computer lab to stay on campus and work. Additionally, the school’s midday “power block”—time for club meetings, intramural sports, and other activities—gave them another opportunity to use the lab as needed.

“Typically, when students are home I try to use that as time for two things: one is background knowledge and the other is time to..."
really highlight skills and practice them, because those are things that individually, I think, students really need time to sit and think on their own about,” Gironda said.

Having taught precalculus repeatedly before starting the blended class, and working in a district that does not adopt textbooks, Gironda already had a variety of resources to create her videos and online assignments. But she did not have digital content, so she used the county’s “ALEKS” adaptive learning software to give students pre-assessments and the work that the program deems them ready to learn.

“That’s something that I use for remediation and also just for homework assignments because it would auto-grade what the kids were doing, it would give them feedback on it, and it would let them re-attempt it—and it was something that I could use without having to break my back as far as grading.

“If it’s a more formative, beginning-of-the-unit attempt, I will let them retake as many times as they need to and I’ll just say ‘you need to have a 100 by this date.’ And so, they can look at it and every question they get is the same topic, but it’s all different questions,” she said. “So they aren’t seeing the same exact questions again, versus a test retake where they might.”

The assessment data she got from the program showed a pie chart of everything students should know by the end of the unit versus where they’re starting.

“I use it much more as a tool that I control,” she said. “I tend to use it to get formative assessment data for myself and then pull that however I see it needed. But for me, the real blessing is then that it will grade and it will give me feedback immediately without me having to go through and do that by hand.”

Then she adapted many of her other materials to work in her videos.

**ADAPTING ONLINE PROGRAMS**

Although Gironda found the ALEKS software helpful, especially for pre-assessments and laying out the standards, nothing prepackaged is truly ready to use, she said.

“I actually went through and designed my own course based on what I felt the standards would need to be, but once you do that once, you have that,” she said. “I went through and just picked and chose what I thought would work for my kids, and so, I was very strategic about what I assigned. Most of the complaints that we get from kids is that they see something on there that doesn’t connect to what they’re doing in class, and so that’s where that school/home connection comes back for me.”

**GIRONDA’S TIPS FOR CREATING VIDEOS**

✱ “The biggest question I get from other teachers is, ‘how do I make videos?’ You’re just walking through the problem. Put a lot of prompts like, ‘pause the video now and try this,’ and give the answer verbally.”

✱ “Kids will easily tune out videos.” So Gironda’s videos frequently told students to stop, answer a question, and submit the answer to her (through the Canvas messaging system that Cabarrus County uses). “Make sure they know someone cared about what was happening. Other software that we don’t have will actually stop the software and make them answer! Embedding questions is better than finding out just if they did it or not.”

✱ “Last question on any video is always, ‘what do you still have questions about?’” That gave Gironda data to review before the next class, so that she could adapt her teaching plans or change student groupings so students work on their weaknesses.

✱ “I know that I couldn’t sit through a 30-minute video, and so I try to keep all my videos under 10 minutes.”

“I really believed in making my own videos—that was something that was important to me because the language I use in class for something might be different than the language Kahn Academy or another site uses,” she said. “The idea of connection between home and school was important, that they heard the same analogies at home and at school. So I use EduCreations as my software to do that, and I would just create my videos and in the same time I could make an answer key for students to do an assignment and create a video going over those.”

Gironda ended up with about 150 videos on her school website available to students at any time—to watch an explanation repeatedly, to catch up after being out sick, or to review for final exams. “If there was anything you didn’t understand, it was there.”

Gironda also relied on Google Docs for collaborative at-home work, and the Desmos online graphing calculator. “My kids beg to use that at this point—they love using it. I can also design guided activities and send them to the kids through it. They have to graph things, and it collects the data. Any activity where I want them seeing patterns means I could design an activity the way I would have sent a worksheet in the past. It’s not a stagnant thing—they can manipulate it.”

She also turned frequently to the #MTBoS—math Twitter blogosphere—to see teachers’ blogs and shared activities.
Given that so much learning occurred outside of the classroom and school day, Gironda found it necessary to put limits on when she would respond online to students. Students knew that if they messaged her after 7 p.m., there was no guarantee she would respond. She also considered adding digital office hours in the future when students could talk to her.

Despite having to set some limits, she said she bonded differently—and more strongly—with her students online. “I just get to know my students in a different way. Students who normally don’t talk in class because they don’t want to be the person who’s speaking up in a 30-person classroom are willing to talk via a digital medium, whether that’s a chat, whether that’s their assignments online—I see a different side of my students, and I think that’s really cool.”

**EARLY LESSONS**

Although a strong advocate of blended learning, Gironda said she learned she needed to ease students into it.

“One mistake was going too digital too quickly. My first semester was to get completely away from worksheets and get kids working digitally. I had some really strong and really weak students. Students at the high level could connect the dots for themselves. They were ready to fly. Others in the middle could see the video and at least try to apply it. But the students at a lower level really struggled with an independent activity. They needed every step and then a worksheet.

“It also creates lots of room for excuses. ‘My internet went out.’ Or, ‘I submitted it and it just didn’t go through,’ et cetera. They just wanted paper. They didn’t know how to take notes independently. I think about 11th- and 12th-graders having those skills. But they really don’t without guidance. I had to go back and teach soft skills. It has to be a natural part of moving into a blended-learning environment.”

Gironda developed guided notes that students could work through on their own, allowing them to understand what she found important. “Then, as the year went on I could wean them off those to really get them to learn how to make decisions about what’s important and what’s not. ... It built major metacognitive skills: What do I know? What do I not know? What do I need?”

Gironda also realized she needed to show students how to learn from a video, working with partners in class on several videos. “We talk about what other strategies you could use, and I did not do that my first year in blended. My second year, I knew they knew how to watch a YouTube video if it’s something fun, but they don’t necessarily know how to learn from a YouTube video.”

Students quickly saw the value of videos, she said, for being able to rewind if they don’t understand a concept or fast-forward if they do.

She also restructured many videos between her first and second years, adding the check-in points and more visuals and analogies.

And Gironda realized that, on several levels, students needed more structure from her. Seeing how easy it was to put off digital assignments, she helped them get into a routine, and became much clearer about her expectations. “It does cut down on the emails if you’re clear with expectations.”

She had students do more collaborative work, problem-solving, and inquiry-based activities at home. “Then when they got to class, we’d be able to talk about what they thought about it so we could use class time for discussion and not just always exploration. So it was a lot of tweaks that seem small from the outside, but they made a very big difference in class.”

Gironda also added more scheduling structure, such as check-points in videos and check-ins with peers for peer assignments and feedback. “So a lot of times I’ll have them reflect on what a peer has done or what they have done... it’s a lot of making them turn in a lot of little things.”

**ONGOING CHALLENGES**

Despite efforts to ease students in, a blended class will continue to be a challenge until students are exposed at an earlier age to independent, online work.

“For the first six weeks, you feel like you’re torturing them. We’re not used to it. They’re used to ‘I do, you do, we do.’ They’re used to having their hands held. Every semester I get pushback,” she said. “But that discomfort goes away, and you start to see the freedom come in. As they learn time-management skills and value the freedom, they start to feel that it’s an experience where they learned math, but they also learned other valuable 21st-century skills. I had a student come back after freshman year of college who saw how many struggled with time management. She said, ‘I didn’t appreciate it then, but I really value having taken blended-learning classes. I knew I had to know what I didn’t know, so I could go to office hours and ask. It was so much better to have been introduced to it.’”
BEING A GLUTTON FOR FEEDBACK

As long as she didn’t take all their comments too personally, Gironda said, she found students’ feedback invaluable in helping her constantly improve her course.

“I do something called ‘Feedback Fridays,’ so every Friday we do either a little exit ticket or a Google survey... where we reflect on what we’ve done that week, and what they felt like worked well and what didn’t. It took me a while to realize that I actually shouldn’t be taking that stuff personally,” she said. “I should be looking at it from a perspective of a 16-year-old, that they have a lot of valuable feedback to give, but when that feedback is ‘I don’t like this because I don’t like it...maybe they don’t like it because you’re asking them to think, and for me, that’s saying, ‘OK, we need to do that more.’”

And blogging, which she didn’t start until she began her blended classes, also helped.

“You have to say, ‘here’s what we’re doing’ and put it out to the whole Twitterverse of ‘what do you think?’ I’ve gotten so much more stronger from that because I’ve had to a) believe in what I’m doing enough to put it out there and b) be ready to hear people who are a lot smarter than me have great suggestions.

“I think the biggest lesson I’ve learned so far in blended for myself has been that I’m extremely interconnected to all sorts of different people around me. I’m extremely connected to my students, and none of this works without feedback from them, because they’re not just the ones learning, I’m also learning, and I need feedback from them to make myself better and make the class better. I’m connected to people around the country that I don’t know who are trying to do the same things I’m doing, and I need to talk to them and to really work with them. And I think it’s pushed me to be much more collaborative with students, parents, and other teachers.”

But keeping students motivated—and noticing when they’re not—remains challenging throughout a semester. “You’re not with them all the time to make sure they’re on task, or, they’re doing what they need to do, but are they doing it while they’re doing it to other things? Because this really is a multitasking generation, and they aren’t necessarily comfortable with ‘you have a video to watch or you have an assignment to do, focus in on it.’ So that’s definitely a challenge.

“I think in a model where you have kids in a (computer) lab where they have a TA who is extremely involved in the planning, it could work for students who aren’t at that very highly motivated level. It also doesn’t work for some honors kids—there are honors kids who are in honors because they are super-smart, not because they work really hard.”

There are also socioeconomic inequities to worry about, Gironda noted. “I have had some students without Internet access. They have to prioritize what has to happen at school. They were bright and motivated, but it affected the pace of the work. It affects them, but we do the best we can to give them options and use them well.”

While helping her students manage their time, Gironda noted that managing her own was a challenge. “In the same way that I think you learn to choose your battles in teaching in general, you have to learn to choose your battles in blended. What assignments are worth me taking the time to read through and give very specific feedback on and what assignments aren’t? That’s been something that I’ve had to take time to learn.”

Gironda’s school, with its block schedule, also did not give blended-learning teachers more school-day planning time, which Gironda sorely needed. “I get to school at 5:30 a.m. most days. Not every teacher is going to be willing to put in 12, 13, 14, 15 hours a day.”

Most Opportunity Culture schools nationally change school schedules to add planning, teacher collaboration, and grading time during school hours. In the model dictated by Gironda’s district, the time saved by having a class of students working elsewhere is consumed by taking on another class. As a result, she gained no new planning time. To free planning time for a reach-extending teacher, secondary teachers who use Time Swaps in at least two class periods can extend their reach in one but not the other (or roughly half the class periods in which they use swaps). This frees a class period every other day for extra planning and grading, while reaching 50 percent more students overall in each pair of class periods.
BLENDING LEARNING’S IMPACT
For Gironda, taking the blended role gave her the happy sense of being “at the cutting edge of something; I feel like I’m pushing myself and I’m learning just as much as my students are.”

And she liked the unexpected results she sometimes saw for students.

“I’ve seen kids who might not have achieved as highly in a regular classroom really achieve at a much higher level because they had the extra help and the extra options of the videos and time in class to talk about what they didn’t understand, not just to try to copy down notes as quickly as they could. I’ve also seen students who I would expect to be much higher fall behind because they are making choices based on time-management skills that are not their best choices. And so, that’s when we start to have conversations about learning lessons from it, that I would much rather see you fail in my classroom with me, who knows you and loves you, and with your parents who know you and love you, than when you are a first-semester freshman at college and you’ve just thrown tens of thousands down the drain. So, it’s unexpected academic results, both positive and negative.”

Blended learning is not a panacea, she noted.

THOUGHTS FOR SCHOOLS AND TEACHERS
PLANNING TO BLEND LEARNING TO EXTEND TEACHERS’ REACH
Having seen blended learning work in multiple subjects—but knowing that there are potholes to avoid—Gironda has strong opinions about what schools should think about ahead of time.

✱ Choose blended-learning teachers very selectively. “You have to have a team of teachers who are really passionate about it.”

✱ Let teachers opt in early on. Forcing new roles that require more work without adding time or support to do them will “spread negativity.”

✱ Give teachers autonomy in devising their courses—and deep guidance. “We developed a digital learning team of about 10 and went to observe [another district’s Opportunity Culture schools using blended-learning]. We got to choose how to structure the course—every other day, every day, et cetera—and different teachers chose different options.”

✱ Ensure that teachers are prepared and understand how much they will need to revise a course as they go. “The other thing I wish I had known was just the amount of work it would be. I thought if I front-loaded all of my videos and I really had activities prepared that I would be ready to go—but as a blended-learning teacher you have to be constantly adaptive, because you really don’t know what they’re going to get and what they’re not when they’re at home.”

✱ Use formative assessments extensively to keep the class manageable, to get to know all the students’ abilities.

✱ Remember that students need to be taught more than content—they must learn time management and how to learn in a different way. “That was huge for me.”

✱ Give parents detailed information on what to expect. “I’ve been very lucky to get trust from parents. I try to feed them as much information up front as I can—I send home a list of tips from students of things that have worked or been beneficial, and pitfalls that I know that kids fall into. I’ve also tried to be as available for them as I can. One thing that I started doing this year was doing a weekly newsletter of what can they expect to see this week, where can they find the assignments for the students if they want to check in.”

“That’s what it’s about – learning to collaborate with other people and learning to be problem-solvers...that’s the purpose school should serve.”

“I think something that blended learning still needs to do is identify what models work for different kids. I think there’s a model that could work for every kid, but they’re not all the same.”

But it did give her students some of what they need for successful futures, she said.

“I always feel like kids are in my room to learn to be thinkers and to survive in the real world. I don’t care in 10 years if you can tell me the quadratic formula; I care in 10 years that you can walk your way through a problem and that you know where to find information. And so, for me, that’s what it’s about—learning to collaborate with other people and learning to be problem-solvers, and if we can do that for kids, that’s the purpose school should serve. Everything else, computers are going to be able to do. So we have to be able to do what computers can’t.”

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Watch: A short video accompanies this vignette series on Opportunity Culture blended-learning teachers, featuring Caitlyn Gironda and Scott Nolt.


Read: Columns in Real Clear Education by other Cabarrus County blended-learning teachers: Lori Treiber, in For Truly Personalized Learning, I Had to Try, Try Again, and Scott Nolt in Blending the Best: Better Learning for More Kids

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