Innovative Staffing to Personalize Learning: TWO BLENDED-LEARNING TEACHERS IN TWO CABARRUS COUNTY HIGH SCHOOLS

CONCORD, NC

This case study is part of a series about schools that use non-traditional staffing arrangements to personalize learning. All schools profiled have demonstrated noteworthy student achievement results.

ori Treiber and Scott Nolt are blended-learning teachers at Central Cabarrus High School and Jay M. Robinson High School, respectively, in the Cabarrus County (N.C.) Schools District. Each uses a mix of in-person teaching and online learning—either at home or school—to reach twice as many students within a specific class period as they would otherwise. They receive salary supplements for reaching more students that are funded solely through each school's regular budgets. Their roles were designed under an initiative called Opportunity Culture.¹

Educator roles and responsibilities

- **Blended-learning teacher:** Lead whole-group instruction and small-group instruction; create online content as needed; reach about twice as many students in a given class period as other teachers by alternating days when students are learning in-person and online
- **Reach associate:** In Treiber's school, blended-learning teachers are supported by a special teaching assistant, known as a reach associate in Opportunity Culture, who monitors students in the computer lab. (Nolt's students have access to a school computer lab, but generally do online work from home, so Nolt does not have any assistants.)

Key instructional practices

- Whole-group & small-group instruction
- Small groups adjusted weekly or by project based on data; grouped by both the same and mixed learning levels
- Teachers differentiate levels/work/products for each student through assignments/ adaptive software/online playlists; students advance based on mastery
- Students help set learning goals & have some choice in learning experiences
- Students do some work in peer teams
- Teachers coach students in social & emotional skills

Technology use

- Blended learning: Flex (Nolt's classes) or Lab Rotation and Flipped Classroom (Treiber's class)
- Provides students with differentiated content instruction
- Provides teachers with digital data system so they can track each student's progress,
 & adjust instruction/student groupings as needed

SCHOOL PROFILES, 2016-17

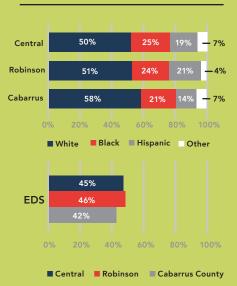
Central Cabarrus High School

Grades: 9–12 Enrollment: 1671

Jay M. Robinson High School

Grades: 9–12 Enrollment: 1301

STUDENT DEMOGRAPHICS



EDS: Economically disadvantaged student

STUDENT RESULTS

Students scoring 3 or higher on state biology exam

Treiber's students 95%

Cabarrus 50%

Student growth in Nolt's blended history classes

Nolt's blended-learning students exceeded learning growth expectations in the state's value-added system. (There is no state history exam.)

THE TEACHING AND LEARNING EXPERIENCE

When Cabarrus County Schools, based in Concord, N.C., near Charlotte, first implemented a form of Opportunity Culture school models, the district wanted to extend the reach of its excellent teachers to more students, for more pay, within regular school budgets. In some of its high schools, the district did so by creating positions for blended-learning teachers.

Lori Treiber began using the blended approach in her 10th-grade biology class at Central Cabarrus High School, and Scott Nolt did so for his American history class at Jay M. Robinson High. They continued to teach other traditional class blocks during the day; in those classes, they did not reach more students than usual, although both incorporated their online learning practices in all their classes, believing in the value of this style of learning. Both schools use block scheduling, with four hour-and-a-half class periods per day, one of which teachers can use for planning.

Nolt's blended-learning students exceeded learning growth expectations in the state's value-added system. Treiber's students also exceeded growth expectations; for example, in fall 2017, 95 percent of them scored a three or higher on the state biology exam, with most scoring a 4 or 5. (There is not a comparable state history exam.)

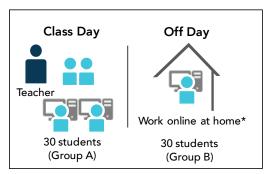
Staffing model

The blended-learning teacher role looks somewhat different from school to school in Cabarrus County, but in their reach-extended blended classes, both Nolt and Treiber teach about twice as many students as their non-reach class blocks—60 for Nolt, 46 for Treiber. Although they teach more students, both use the advantages of blended learning to personalize instruction by creating online course materials, allowing students to work at their own pace and level of interest. Nolt sees 30 of his 60 students at a time, in person on alternating days; on their "off" days, students—juniors and seniors—typically work from home, while the other 30 students are in class with Nolt. Because Treiber's students generally are not old enough to drive, they stay on campus every day but rotate through in-person instruction and online learning as Treiber sees fit, based on student needs and the day's topic.

When working online, Treiber's students are supervised by a special teaching assistant called a "reach associate" in most Opportunity Culture schools, who may also assist Treiber when all students work together in one classroom. The reach associate, who may work part or full time depending on how many blended-learning classes he or she helps with, monitors students to ensure that they stay on task and resolves technical issues. Although a teaching background is helpful for managing a class, reach associates do not have to have any teaching background.

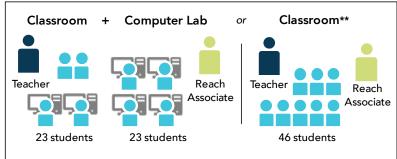
In contrast to most Opportunity Culture schools,² Nolt and Treiber do not have additional planning time built into their school days; they get only the single daily planning block that all teachers in their schools have.

FIGURE 1A. NOLT'S CLASSROOM



* Students have the option to work online on a school computer; the groups switch every other day.

FIGURE 1B. TREIBER'S CLASSROOM



^{**} On some occasions Treiber has all 46 students meet together in a large room.

The student learning experience

Nolt's students: On- and off-campus learning

Students take Nolt's American history class during the last block of the day, so they can go home to work on their "off" days, although a few work on computers in the school library.

Nolt uses a **Flex blended-learning model** for his class. He often begins with a short discussion—for which all notes are posted online, so students focus on participating, not taking notes. Students then work in small groups and on online assignments, while Nolt circulates through the room, providing help and feedback as needed. By putting all his class materials and lecture notes online, Nolt has moved to teaching a "concept-driven" course that focuses less on memorizing historical facts and more on critical thinking skills. With this format, Nolt says, his students have a much wider range of resources and options in assignments. He also spends far less time lecturing, giving him more in-class time to support students who struggle with analyzing and other thinking skills, and to talk with all his students more, by offering individual feedback and helping students as they work in small collaborative groups. Additionally, he gives more frequent, shorter online assignments and assessments, rather than assigning long papers, allowing him to quickly grade and give feedback on each assignment during class periods so students can immediately see and correct issues and errors.

During their off days, students do activities that prepare them for the analytical, critical thinking that Nolt needs them to do in front of him during class time. For example, students may begin tasks requiring critical thinking and analysis on their own, or in small online groups, but then finish those tasks during class. The off days also give students opportunities to work on skills practice and take some assessments. Students can communicate with Nolt through their online messaging system as needed, and may also work online in group projects or assignments where every student is expected to "speak up." "Shy isn't really an excuse there," Nolt says, "and they're OK sharing in that setting a little bit more."

Students have choice in assignments, in how deep to go into a topic, how often to resubmit assignments, and, within limits, on how fast or slowly they work. The blended-learning approach allows students to explore concepts at different depths of understanding, based on their interests. All students start by learning a "big idea" that they all can understand. Each student can then go as far into the topic as they like, from the basic assignment to a much deeper study. They then demonstrate their mastery of course concepts through essays, PowerPoint presentations, posters, or other types of assignments.

Treiber's students: In-school rotations

Because Treiber's students attend her class each day, she uses a Lab Rotation blended-learning model and determines the breakdown of time each day. So, on some days, she has half of her students with her for half the class period, while the others work online in the computer lab next door and then switch for the second half of the period. On other days, half of her students meet with her for the whole class period and then switch the next day. On some occasions she has all 46 students meet together in a large room.

Treiber also uses some elements of a Flipped Classroom blended-learning model: For homework, students watch her recorded lessons online, giving them the chance to rewind as needed to absorb her lectures. She uses PowerPoints and animations with embedded questions in the videos to help students stay engaged. When students are not online, they may work independently or in small groups on lab work or other assignments while Treiber circulates among them to help, or provides limited amounts of whole-group instruction as needed.

Students in Treiber's class get a high degree of choice in the amount of work they do, the assignments they choose, how frequently to resubmit assignments to try for higher grades, and, to a lesser extent, the pace at which they work. She provides these choices through a system she created that allows them to opt out of some work for a unit if they did well enough on the previous unit's test.

She also structures group work to require students to take responsibility for their level of participation. Each group's students create a contract at the outset that delineates each person's strengths and weaknesses, rules for the group, and how they can fire a group member (who must then do an independent project). Additionally, at the end of each project students submit a reflection in which they have some input on a portion of each person's grade.

Nolt and Treiber say the flexibility of their blended-learning roles allows for the higher level of students' personal choices in their learning, and they emphasize the value of student choice for teaching life skills—such as learning to fail and then recover from poor choices. Treiber's students strive for higher grades to get the option of choosing their assignments, and must make choices in how to participate in group projects, while Nolt focuses on mastery, allowing students to resubmit assignments.

"There are a lot of life lessons that I go through in my class, you know, teaching them the right way to do things, teaching them about integrity, teaching them about working together, collaboration, group work, being responsible to your group, being responsible to yourself. All that goes into what I do along with the personalized learning," Treiber says.

Technology use

Technology is at the heart of the Cabarrus teachers' blended-learning model. Both teachers' students work on school-provided laptops, and their schools use the **Canvas** learning management system to post everything related to the class, including lecture notes, videos, resources, assignments, and due dates. Treiber also uses **CK–12** for reading resources.

Compensation and funding model

The maximum annual pay supplement in Cabarrus County for blended-learning teachers (based on number of course sections taught), is \$14,000, or \$3,500 per class block in which they extend their reach.

Each traditional teacher at these high schools teaches three blocks daily. By doubling the number of students taught in one block, Nolt and Treiber each teach four "block's worth" of students, instead of three, an increase of 33 percent more students each semester. By reducing the need for teachers, the schools can increase pay for the excellent teachers who extend their reach this way. Treiber's school also funds the reach associate position through the savings of having fewer teachers overall.

Endnotes

¹ For more on an Opportunity Culture and an example of a schoolwide Opportunity Culture staffing model using multi-classroom leaders, see the Ranson IB Middle School profile in this series. Although Nolt's and Treiber's students excelled, subsequent research by the CALDER Center indicates that roles like theirs achieve better outcomes on average when embedded in teams led by multi-classroom leaders. The research showed that teachers who were on average at the 50th percentile in student learning gains, who then joined teams led by teacher-leaders known as multi-classroom leaders, or MCLs (who had prior high growth as teachers), produced learning gains equivalent to those of teachers from the 75th to 85th percentile in math, and, in six of the seven statistical models, from 66th to 72nd percentile in reading. Teams had a median of five teachers in addition to the MCL. For more information, see: Hansen, M., & Backes, B. (2018, January 25). New teaching model yields learning improvement for students in math [Blog post]. Retrieved from https://www.brookings.edu/blog/brown-center-chalkboard/2018/01/25/new-teaching-model-yields-learning-improvement-for-students-in-math/

² See Ranson IB Middle School profile for an example of scheduling and roles that allow additional planning time. Retrieved from http://publicimpact.com/pi/wp-content/uploads/2018/04/Innovative_Staffing_to_Personalize_Learning-Ranson_IB_Middle_School.pdf

This series is a collaboration between Public Impact and the Clayton Christensen Institute. Research, writing, and editing was done by Thomas Arnett and Luis Flores from Christensen and Nita Losoponkul and Sharon Kebschull Barrett of Public Impact; video and print production by Beverley Tyndall of Public Impact. Thank you also to Emily Ayscue Hassel, Bryan C. Hassel, and Grayson Cooper of Public Impact.

See the accompanying videos for this profile at http://publicimpact.com/innovative-staffing-to-personalize-learning/.
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Please cite this report as: Public Impact and Clayton Christensen Institute. (2018). *Innovative staffing to personalize learning: Two blended-learning teachers in two Cabarrus County high schools.* Chapel Hill, NC: Public Impact; and Lexington, MA: Christensen Institute. Retrieved from http://publicimpact.com/innovative-staffing-to-personalize-learning/.



