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You've heard the hype about **FLIPPED CLASSROOMS**. Now learn how real schools are implementing one of the **HOTTEST TRENDS** in education.

IT'S MORE THAN JUST VIDEOS

TALK TO GREG GREEN, OR ANY OTHER proponent of flipped learning, and that's one of the first things you'll hear: that the common definition of flipped learning—students watching video lectures at home and completing their homework in class—is inadequate, placing too much emphasis on how students receive content and not enough on what they do with it.

"Really, our definition of 'flipped' is what [some] teachers have done for a long time," says Green, principal of Clintondale High School, 30 minutes northeast of Detroit, which bills itself as the first school in the country to move completely to flipped learning. "They spend a lot less time lecturing and a lot more time doing activities in class."

"The classroom is like a work center," says David McKinney, principal of Havana High School in Illinois, which has also moved toward flipping all of its classes. "We're doing projects. We're developing a film. We're developing PowerPoint presentations, a story, a poem, all sorts of hands-on activities that cause [students] to be involved in their own education."

Critics of flipped learning argue that the model merely shuffles schedules so that students participate in the same old learning activities, only at different hours—lectures at night, homework during the school day. "There is widespread interest in flipped classrooms," says Justin Reich, a research fellow at Harvard University. "But there are people who think making modest changes in the timing in which we do the same practices that we did before won't have a big impact on student learning."

Even that shift in timing is an improvement over the traditional model, flipped advocates say, because it gives students access to teachers while they're trying to apply what they've learned. But that basic level of implementation is only the beginning, and is rapidly giving way to a "version 2.0" model in which teachers and students do the sorts of things Green and McKinney are describing—and more.

"What we're seeing is a teacher spending a year or two doing 'Flipped Class 101,'" says Jonathan Bergmann, coauthor of *Flip Your Classroom: Reach Every Student in Every Class Every Day*. "Then they move to project-based

learning, inquiry-based learning. It's causing them to reinvent themselves, to have a completely student-centered, learner-centered classroom, as opposed to what we have in most schools, which is a teacher-based model."

THE EVOLUTION OF FLIPPING

AT CLINTONDALE, WHAT STARTED AS 20-minute video lectures on a given topic became 10-minute videos, and the 10-minute videos have since turned into three- and four-minute clips that students can watch as many times as they need to.

Some videos are staff produced, while others come from YouTube or educational websites like Khan Academy. But, Green notes, teachers don't always assign videos. Students might learn content at home by participating in online discussion boards or through good old-fashioned reading. Or, they might do a "mini assignment" and then bring their five or six problems back to class, where a teacher can help them work through the parts they don't understand.

Stephen Plank, principal of Lakes Community High School outside of Chicago, says his teachers are making presentations and putting them online for students to view. In one class, students watched a political debate on TV at home and blogged with one another about it in real time—a far cry from a video lecture.

At other schools, teachers might ask students to participate in an online science simulation at home, or play an educational game to learn new material.

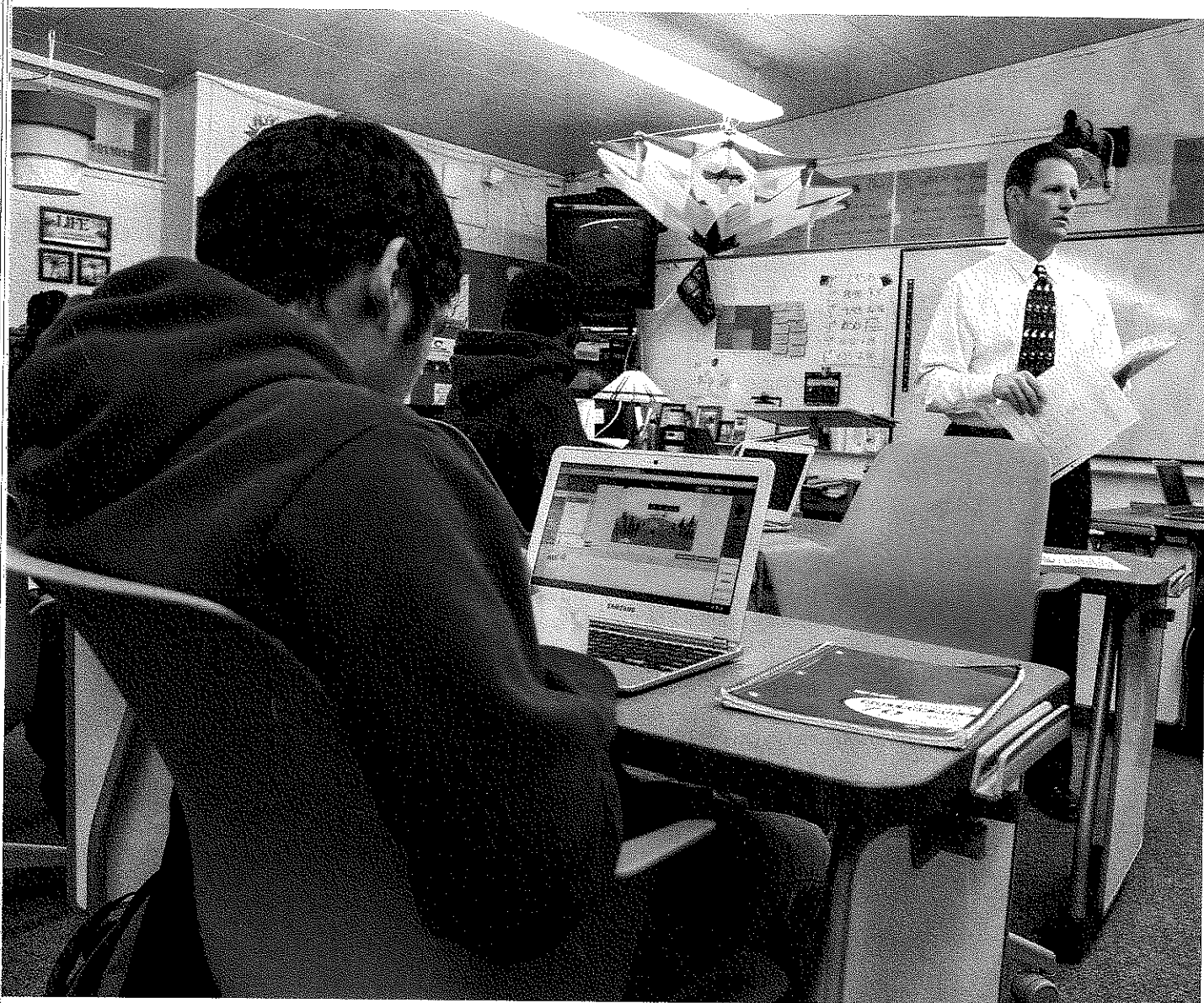
Charles Willis, a teacher who has flipped his history classroom at Revere High School outside of Boston, gives more "traditional" flipped assignments. Students get worksheets on their iPads, with links to short videos explaining topics like manifest destiny.

Willis still spends some class time the next day clarifying the introductory material for students, but he now has more instructional minutes left over for group projects that encourage deeper thinking and analysis. Recently, students went home and watched a video on George Washington. The next day, they had a "dinner party" where they discussed their views on the first president's policies.

"The in-class component is really where the flipped learning takes place,"

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BY CALVIN HENNICK
PHOTOGRAPHS BY TOM MCKENZIE/AP



Willis says. "It's building in time to do the higher-order thinking skills."

Tom Driscoll, a social studies teacher at Putnam High School in Connecticut, initially tried flipped learning in the fall of 2011, using the basic approach of sending videos home with students and having them complete homework in class. "It was better, but it wasn't very satisfying," he says. "I just thought, 'There's so much more you can do with this.'"

So Driscoll next tried "flipped mastery"—a model laid out in Bergmann and coauthor Aaron Sams's book—in which students progress at their own pace, moving on to new objectives only after they've mastered the previous ones.

Then, this fall, Driscoll "gamified" his classroom, turning all assignments into

quests for points, with students clamoring for position atop a leader board. Students still work at their own pace, taking on "bonus missions" if they're ahead of their peers. It's a novel approach, and one that Driscoll says wouldn't have been possible if he hadn't flipped his classroom and then kept pushing.

Driscoll also sets aside one day each week for students to work on self-guided projects that they're passionate about, and he has started having students create some content-explaining videos of their own.

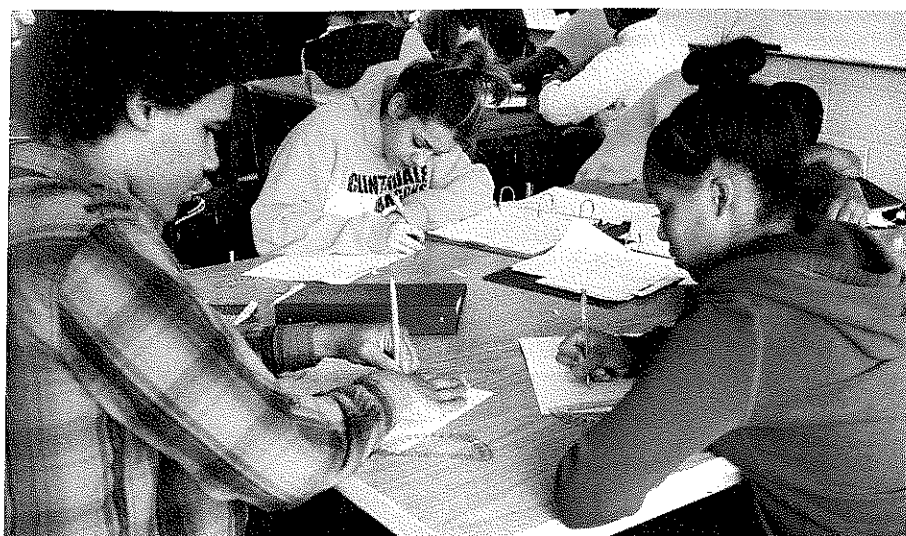
"When you leverage technology and take the direct instruction out of the group learning space, the opportunities are limitless for what you can do when your kids are present," Driscoll says.

THE IMPORTANCE OF IMMEDIATE FEEDBACK

UNDER THE TRADITIONAL MODEL OF teaching, students hand in homework at the beginning of class, and teachers don't check it until later that night—after they've already introduced new material on a completely different topic.

"If you're going through a stack of 150 homework assignments, it's pretty easy to miss the frustration a kid might have," says Sams. "But if you're looking them in the eye and saying, 'Explain to me how you answered number two,' then you can see on their face whether they get it or not."

Green and McKinney both echo the idea that real-time checks on students is



CLINTONDALE'S TEACHERS are becoming increasingly creative as they flip classes, assigning much more than videos for students to complete at home. In class, the work tends to be collaborative and student-focused, with teachers assigning inquiry-based projects.



a major benefit of the flipped classroom.

"Normally, you have them do these homework assignments, and you don't know how much copying has happened," says McKinney. "The next thing you know, you give a quiz, and you say, 'Nobody's getting this.' With flipped, you're constantly assessing."

"You're getting immediate feedback," agrees Green. "The teachers know exactly where the students are at."

Willis says the flipped model allows him to answer questions and spend more time with students who are struggling. "I can do a little study session," he says. "It really turns the teacher into a coach and facilitator, rather than someone who stands up and talks all the time. The class time has totally changed for the better."

CREATING EQUAL ACCESS (AND OTHER CHALLENGES)

LIKE ANY OTHER NEW EDUCATION initiative, flipped learning has its detractors. Some argue that many students don't learn well from in-person lectures, and those students may have an even tougher time digesting lectures on video. (Flipped advocates counter that the model gives students more opportunities to master content during the school day.)

Critics also charge that the model sets up an unequal learning environment. If learning is taking place at home on technology, the argument goes, then kids who don't have access to technology will be at a distinct disadvantage.

It's a fair point, and a problem that no

FLIPPING & TEST SCORES

Because the concept of flipped learning is so new, research on the method is scant. But some initial findings are positive in terms of student test scores and student and teacher satisfaction.

The **Flipped Learning Network**, an organization started by authors and former teachers Jonathan Bergmann and Aaron Sams, released a whitepaper about flipped learning in June 2013. According to that document,

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PERCENT of teachers using flipped learning reported that their students' standardized test scores increased after they flipped their classrooms.

8 IN 10

TEACHERS reported an improvement in their students' attitudes toward learning, and

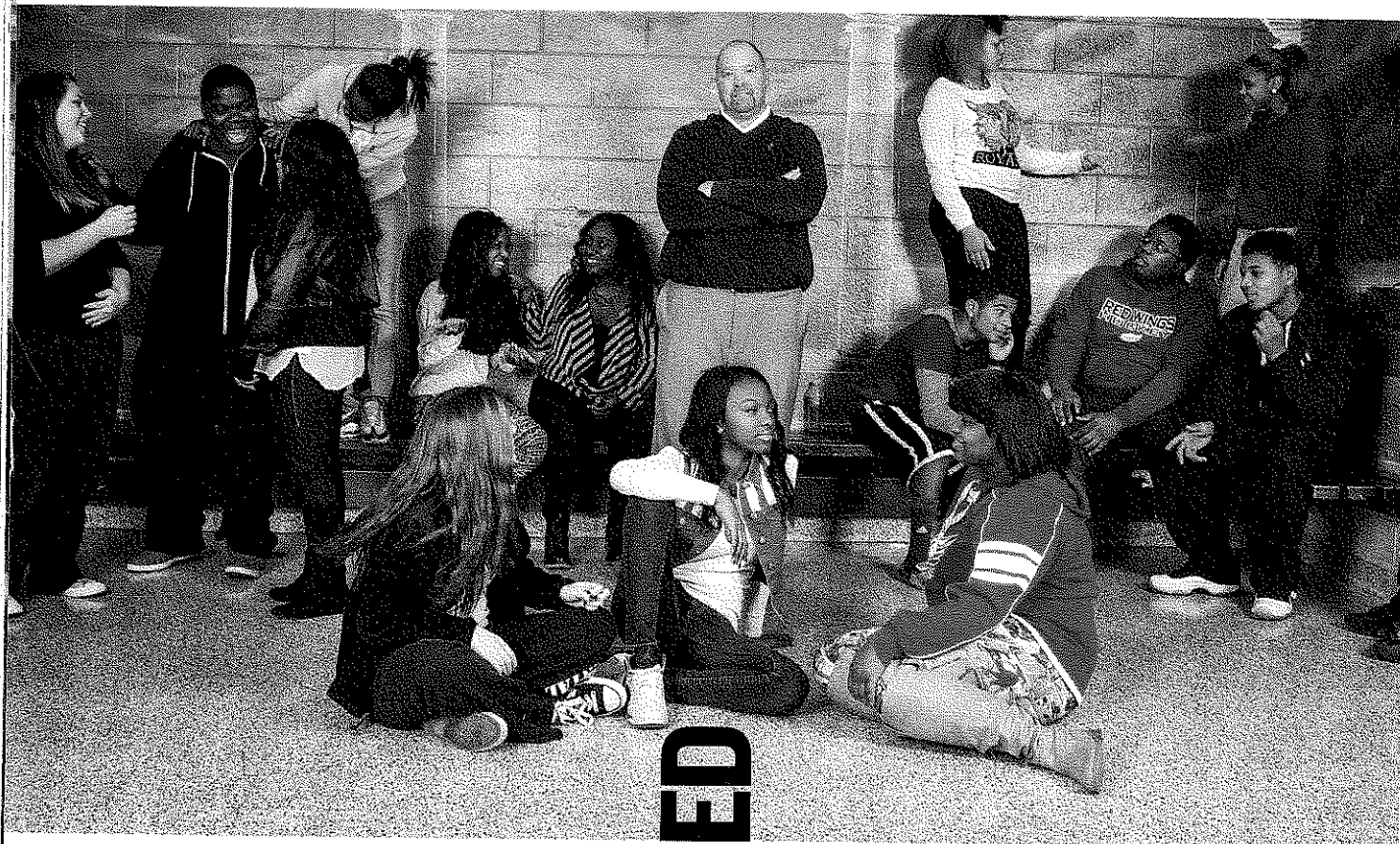
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PERCENT reported a significant improvement in their own job satisfaction.

The whitepaper also cites results from individual schools and districts. At Clintondale High School, the paper says, failure rates dropped by as much as 33 percentage points in classes that flipped, and the school also saw a decrease in student discipline rates. And in one Minnesota school, the percentage of students passing the state test in math jumped from 30 percent in 2006 to 74 percent in 2011, after flipping started.

Bergmann receives e-mails every week from doctoral candidates interested in researching the model. "In two years we're going to have so much research, we won't know what to do with it all," he says.

STARTING SLOW AND EXPERIMENTING worked best for Clintondale teachers as they got used to the flipped classroom and made sure their students had the necessary technology to view videos or lectures at home. Principal Greg Green is pictured at center.



FLIPPED

THE MODEL
"REALLY TURNS
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school district has resolved completely. Bergmann and Sams made DVDs for some of their students, but that's time-intensive. Green says around 80 percent of his students have access to some type of technology where they can watch flipped videos, and that the school's computer lab is open in the afternoons for students who need it.

In McKinney's district, the decision about how much to flip is made class by class, based on who's able to watch videos at home. "If we have a class that we know can do that, we do the traditional style of flipped," he says. "If they can't, we flip a lesson here and a lesson there."

There's also the danger that students won't watch the videos, even if they are able to. But flipped advocates point out that the same problem exists in traditional classrooms—kids have been skipping homework since it was invented. And some teachers give quizzes on videos to hold kids accountable, or they check students' notes.

PUTTING IT INTO PRACTICE

SCHOOLS LIKE CLINTONDALE AND Havana—where every class is flipped—

are the ones garnering headlines. But the flipped programs at both schools started small, with clusters of teachers trying the model in their classrooms before it spread school-wide. Many flipped advocates argue that that's the way to begin, rather than with a top-down mandate.

"If you're just saying, 'Everyone's going to flip,' I don't know if it's going to get the desired results," warns Andrew Miller, a member of ASCD's training faculty. "I've

seen teachers who, if they don't know what to do, just revert to more lecture. That's defeating the whole purpose."

In Allen, Texas, around 15 percent of the district's 1,200 teachers have flipped their classrooms, led by teachers on a single science team three years ago. Lisa Casto, director of curriculum and staff development for Allen ISD, says the initiative will continue to be led by teachers.

"We won't be one of those districts that mandates it as an instructional strategy," she says. "We believe it's a good one, but we'd rather the teachers select it."

Plank, the Lakes Community principal, also advises against top-down implementation. Teachers forced into flipping might not understand or buy into the concept enough to ever break out of "Flipped 101." Instead, they may simply do the same things they've always done, only using a new format—the very scenario critics fear. If that happens, Plank says, "You're going to get the same results."

"We have started small, and somewhat cautiously," he emphasizes, "under the belief that you have to have teachers who see and believe that there's value in it." ■