Teachers view homework as an opportunity for students to continue learning after the bell rings. For many students, it’s often just the dreaded “H” word. How can educators change the way students view homework while ensuring that they still benefit from the additional learning it provides? It’s easy. Flip the learning!

In Solving the Homework Problem by Flipping the Learning, Jonathan Bergmann, the co-founder of the flipped learning concept, shows you how. The book outlines

• why traditional homework causes dread and frustration for students,
• how flipped learning—completing the harder or more analytical aspects of learning in class as opposed to having students do it on their own—improves student learning, and
• how teachers can create flipped assignments that both engage students and advance student learning.

Bergmann introduces the idea of flipped videos, and provides step-by-step guidance to make them effective. The book also includes useful forms, a student survey, and a sample letter to send to parents explaining the flipped learning concept.

You want your students to learn, and your students want learning to be accessible. With that in mind, read through these pages, flip the learning in your classroom, and watch students get excited about homework!
Homework! The word strikes fear and trepidation in students. It truly is the “H” word. Parents have a love-hate relationship with homework. They want what is best for their kids, and many think it is the way for their children to succeed, but they fear that they may not be able to help their children. Teachers feel an obligation to assign homework because of outside pressure, internal motivation, or simply because we have always done it this way. What is the value of homework? Does it help students, hinder students, or is it an instrument of control teachers hold over students? As a teacher, I have assigned a lot of homework. Some homework assignments have been meaningful and effective, while other assignments have merely been busywork that did not help my students. And as a parent of three children, I have spent countless hours working with my kids. I have sometimes seen how homework benefits my children and
other times seen how it hinders their education. With each of my three children, there have been moments of tears when I questioned the value and purpose of a homework assignment.

According to the National Center for Family Literacy, in 2013 (Scoon, 2013) 50 percent of parents say they have trouble helping their kids with homework. The reasons they gave were:

- They don't understand the material (46.5 percent).
- Their kids don't want help (31.6 percent).
- They are too busy (21.9 percent).

I received this e-mail from Barbra Sterns (2016, personal correspondence), a corporate trainer and frustrated parent:

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As far as I am concerned, the “H” word is the biggest advantage of the flipped classroom. When my kids were in school, six or seven different teachers would each lecture for an hour and then send the kids home to do the homework, which was almost always application and practice of the concepts from class that day.

But my kids didn't come straight home; they went to day care until I was back from work. I dropped them off at day care at 7:30 a.m. and picked them up at 5:30–6:00 p.m. The day care didn't have willing or trained helpers for homework. Even after-school programs at the school used their time for activity and fun, not to extend the school day. Then in the three hours between the time we got home and the time they went to bed, we fit in meals, baths, martial arts, birthdays, etc. Homework was always a battle; they couldn't always remember well enough to apply and when I tried to help they said, “That's not what my teacher told me.”

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THE PROBLEM WITH HOMEWORK

From my lens as both a career teacher and a father, I see several problems with homework in today’s educational climate:

- Homework that seemingly has little meaning and usefulness
- Assignments that take too long to complete
- Assignments that many students don’t complete
- Teachers sending students home with assignments that they are ill-prepared to complete
- Ineffective homework assignments

Denise Pope, PhD, a researcher at Stanford University, surveyed more than 4,300 students at high-achieving secondary schools and found that only 20 to 30 percent of students found their homework to be useful and meaningful (Pope, 2013). Homework, in many cases, does not help students achieve, does not help students develop curiosity, and may be an exercise in compliance and control. Assignments are often given without context, are either too easy or too difficult, or are irrelevant to the course.

As a parent, I have watched my children work late into the night, and even into the wee hours of the morning, to complete homework. It feels as if some teachers equate the amount of homework with rigor. But in reality, all their homework accomplishes is teaching students to resent and sabotage the love of learning.

The Educator’s Dilemma

For a variety of reasons, students often come to class without having completed the necessary prework. Should teachers fight this, or should they give up and not assign any homework? If our goal is compliance instead of learning, then we educators have missed the point of homework. On the flip side, hard work and perseverance are elements of learning. Not every student is interested in everything that is taught, and many may lack the internal motivation to complete all assignments.
A Recipe for Failure

I am the first to confess that I sent students home with assignments that some could not complete. I sent them home with work they were incapable of completing with the limited background I had given them. Maybe they did not have the cognitive framework, maybe they did not have adequate support at home, or maybe they were simply too busy with the demands of their home life. Some students came to class with incomplete work because they saw no value to the assignment and chose not to complete it. Others had been inundated with senseless homework over many years and rejected homework as a whole on principle. Much of the time, students didn’t complete homework assignments because they lacked the necessary background knowledge and gave up. Then these same students came to class and professed not to care about school and often became discipline problems. In my experience, students who are discipline problems are getting negative attention for behavior to mask feelings of inadequacy and a sense of failure. It is easier to struggle and disregard the value of school than to struggle, continue to care, and feel like a failure.

The Great Debate

There is quite a debate among educators, parents, and communities about the value of homework. On one side are the proponents of homework, who feel that students need to have time to practice what they have learned in class. And on the other side are those who think homework is a waste of time or harmful for children. Some parents believe that schools should not assign any homework. To those parents, school is for learning and home is for family. They feel that school is infringing on the homelife of families and want academic work to be restricted to the school day. I sympathize with these parents because, as a parent myself, I too have seen the dark side of homework, wherein my children are lost, frustrated, or have been given so much homework that sleep is sacrificed.
For some teachers, homework is assigned because it is expected. Little deep thought is given to the quantity, quality, or efficacy of the assignment. And for others, homework can be a power issue, whereby teachers use homework as a reward-and-punishment system to control students. A quick review of the research can be summarized by the work of two educators—Robert Marzano and Alfie Kohn.

**Marzano.** Robert Marzano evaluated the research on homework and came to the conclusion that homework is an effective tool for learning. Marzano found a correlation between the age of the student and the effectiveness of homework. The older the student, the greater the effect on student achievement. His findings are summarized in Figure 1.1.

![Figure 1.1: Student Age and Effectiveness of Homework](image)

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Percentile Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>4–6</td>
<td>+6</td>
</tr>
<tr>
<td>7–9</td>
<td>+12</td>
</tr>
<tr>
<td>10–12</td>
<td>+24</td>
</tr>
</tbody>
</table>

Marzano also suggested an ideal amount of time for students to engage in homework, which he refers to as the “ten-minute rule.” Per the rule, students should be assigned no more than ten minutes of homework per grade level. So, following that rule, a 4th grade student should have no more than forty minutes of homework every night.

**Kohn.** The other side of the homework debate can be represented by Alfie Kohn. Like Marzano, Kohn examined the research. However, unlike Marzano, Kohn concluded that the research shows that homework has little effect on student achievement and should be abolished. He stated in an online video (Kohn, 2009):

> When you think about it, it’s kinda weird that after spending all day in school, kids are asked to do more academic assignments when they get home. What is weirder about
this is that we don’t think it is weird. We never stop to ask if it is logical, whether it is consistent with our ultimate goals for children’s development, or whether any research supports it. The questions I want to ask about homework are not the little bitty questions like should we cap it at x minutes? I want to ask the question, “Why do kids need to work a second shift when they get home on academic assignments?”

Kohn argues that students need more unstructured time to play, explore, and develop outside of the structure of rigorous homework. Kohn criticizes homework studies and questions the value of any homework. In his book, The Homework Myth, he concludes that “…the research offers no reason to believe that students in high-quality classrooms whose teachers give little or no homework would be at a disadvantage as regards any meaningful kind of learning.” He breaks down his summary into two categories: younger students and older students. He states that for younger students, there is either no relationship, and possibly even a negative relationship, between homework and student achievement. For older students, Kohn states that there is no significant relationship between homework and student achievement, with one exception: there is a positive relationship between the amount of homework done and students’ grades (Kohn 2006).

A Possible Solution?

So which is it? Does homework benefit students? As a classroom teacher, as someone who has visited classrooms around the globe, and as one who has reviewed the literature, I have come to the conclusion that homework, when done with meaning and forethought, helps students achieve. Homework must be relevant, meaningful, and taught at a level that is commensurate with a student’s ability.
Is there another way? What if homework took less time, was more meaningful, more relevant, more focused, and students actually did it? I have seen how flipped learning “solves” the homework problem. No longer is homework the “H” word, but rather an activity that prepares students to learn deeply and become active and engaged participants in the classroom experience.

**FLIPPED LEARNING AND BLOOM’S TAXONOMY**

Before discussing flipped learning, let’s look at homework in light of Bloom’s Taxonomy. In a traditional classroom, the lower tiers of Bloom’s Taxonomy are done in class and students are sent home to climb their way to the top of the taxonomy by completing practice problems, projects, and papers on their own time without an expert present to help. In a flipped classroom, the lower tiers of Bloom’s Taxonomy are delivered to the individual learner outside of the class, so all students can engage in higher-order thinking during class with their peers and an expert present.

**From the Bottom Up**

As I look back at my classes before I pioneered the flipped class with Aaron Sams (Bergmann and Sams, 2012), I spent the bulk of class time teaching remembering and understanding and then sent my students home to apply, analyze, evaluate, and create (see Figure 1.2). As a parent, I have had my children come home and get frustrated with homework. But my kids had me, a professional educator, there to help them, so my educational practice was adequate for my children. But not all children grow up in educator-rich homes.

Many students come to us from disadvantaged homes where parents lack the time or expertise to help their children. I especially remember how sending students home to do the “hard stuff” didn’t work when I taught in an inner-city middle school in Denver, Colorado. When I sent students home to apply and analyze, many came
Solving the Homework Problem by Flipping the Learning

back empty-handed. Some of these students did not have the parental support at home to help them with the more difficult cognitive tasks and, thus, they were not successful. For instance, I recall teaching my 7th grade students the rock cycle via a lecture. Students were expected to take notes and then go home and answer some questions on a worksheet. I was frustrated by both the lack-of-completion percentage and the quality of the students’ answers. A typical assignment I might send home when I taught was:

“The mid-ocean ridge is a divergent boundary where lava erupts onto the ocean floor. Explain what is happening in terms of igneous rocks.” This assignment requires students to understand the difference between extrusive igneous and intrusive igneous rocks. From a Bloom’s Taxonomic
lens, this is either at the application or analysis level. It is important to analyze, but expecting them to complete this assignment on their own with little or no help is unrealistic at best and harmful at worst.

**From the Top Down: The Flipped Classroom**

What if we were able to do the "hard stuff" in class and use the homework time for kids to get the basic knowledge and understanding? This is exactly what happens in a flipped classroom. The "hard stuff" is done in the presence of the most valuable resource in any classroom—the expert: the teacher! (See Figure 1.3.)

Let’s flip Bloom’s Taxonomy. Let’s spend more class time on the more difficult cognitive tasks and less class time on the easier tasks. In

![Figure 1.3]

**Bloom’s Taxonomy Inverted**

- creating
- evaluating
- analyzing
- applying
- understanding
- remembering
the diagram in Figure 1.2, consider each tier of the pyramid to be time spent on different tasks in class. Students need more time working on the higher tiers of Bloom's Taxonomy with their teacher present to help them with the lower tiers.

When I have shared the inverted Bloom's Taxonomy (Figure 1.3) with educators, they are overwhelmed with the amount of time spent in the top two tiers of the pyramid. They don't see how their students can spend that amount of time evaluating and creating. Instead, a more realistic picture of how flipped learning and Bloom's Taxonomy may intersect is a diamond (see Figure 1.4). Assuming again that the greater area represents

**FIGURE 1.4**
**BLOOM’S TAXONOMY IN DIAMOND FORMAT**

- creating
- evaluating
- analyzing
- applying
- understanding
- remembering
a greater amount of class time devoted to the level, the bulk of class time will be used for application and analysis.

For too long, schools have been upside down with regard to which tasks are done in class and which are done outside of class. Class time must be used more thoughtfully in ways that allow all students to receive the support they need both in and out of class. In doing so, all students benefit. In the Bloom’s Taxonomy diamond model, flipping the class simplifies the learning process for students and teachers by placing the right resource—the teacher—with those with the greatest need—students struggling with higher-order tasks. Magdalen Radovich, an instructional leader in Middletown, New Jersey, says that the best thing about flipped learning is that “the light lifting happens at home and the heavy lifting happens in the class with the teacher present.”

**ENTER FLIPPED LEARNING**

Flipped learning, at its core, is a very simple idea. Students interact with introductory material at home prior to coming to class. This usually takes the form of an instructional video created by the classroom teacher. This replaces the direct instruction, which is often referred to as a lecture, in the classroom. Classroom time is then repurposed for tasks such as projects, inquiry, debate, or simply working on class assignments that, in the old paradigm, would have been sent home. This simple time-shift is transforming classrooms around the globe.

A growing number of teachers have made homework more meaningful and effective by flipping their classrooms. At its core, the flipped classroom approach is very simple: direct instruction and basic content delivery is delivered to students through an instructional video (which I will call a flipped video) and then class time is devoted to application, analysis, and practice with the teacher present to clear up misconceptions and questions. Basically, the easy stuff is done before the face-to-face class time. Once the teacher and students are in the same room, the basic content has been introduced, and the repurposed class time is used to engage students in higher-order thinking. The students do the easy
stuff before class and the hard stuff in class, where the teacher is there to help them.

**HOW FLIPPED HOMEWORK BREAKS THE MOLD**

How is flipped homework different than traditional homework? Interestingly, flipped homework flies in the face of some of the research on effective homework. Copper (2001) states that homework should never be used to teach new material. Instead, effective homework should be for practice and extension of the things learned during class. Flipped homework is, therefore, a paradigm shift in best homework practices. This radical departure from the traditional understanding is now possible because of the simple fact that a teacher's introductory lesson can be shared in an interactive and engaging way, whereby students can come to class with sufficient background knowledge. Thus, flipped homework not only turns homework on its head, but it also turns homework research on its head.

Flipped homework also solves the time problem. Some students may complete in 10 minutes an assignment that make take others an hour to complete. The beauty of a flipped video is that the time length is fixed. When the flipped class is done well, the videos are short and the length of the video is known. Though some students will take more time than others interacting with the flipped videos, the time differential is much less than with typical homework.

**STUDENT PERCEPTIONS OF FLIPPED HOMEWORK**

Students around the globe are learning in flipped classrooms. Flipped classrooms can be found in virtually every country, on every subject, and at every grade level. What are students' perceptions about the intersection of homework and flipped learning? In writing this book, I reached out to flipped classroom teachers around the globe and asked them to
administer a survey to their students. I sent invitations to teachers I had worked with and even published requests through several social media outlets. This is not an action research survey where there are control groups and an established research protocol. However, the large number of student responses adds greatly to our understanding of student perception of flipped learning and specifically its relation to homework. If you want to see the original questionnaire, please go to bit.ly/fliphw. The data are interesting and compelling. I will share some of the results in this chapter and later in the book.

The survey was taken by 2,344 students (the majority of whom were from the United States; see Figure 1.5) and the breakdown of grade levels is shown in Figure 1.6. Students were in a variety of flipped courses (see Figure 1.7). The fact that there were 3,578 responses to the question posed in Figure 1.7 indicates that many students were in more than one flipped course.

FIGURE 1.5
COUNTRIES OF ORIGIN OF SURVEY RESPONDENTS
FIGURE 1.6
GRADE LEVELS OF SURVEY RESPONDENTS

FIGURE 1.7
SUBJECTS TAKEN BY SURVEY RESPONDENTS
It is interesting that the majority of flipped classes were in science and mathematics. While this data might suggest that it is easier to flip science and math, I am not convinced of that. I believe classes in every subject can be flipped, with important modifications. That is one reason why Aaron Sams and I wrote the *Flipped Learning Series*, which includes separate books about how to flip in five different settings—Science, Math, English Language, Social Studies, and Elementary.

Students’ responses to the question, “If you had a choice between a flipped class or a more traditional class, which would you choose?” are shown in Figure 1.8. Most prefer flipped learning or have no preference. Based on the added benefits cited elsewhere in this book, flipped learning is a model that should be considered deeply.

**FIGURE 1.8**
**STUDENT RESPONSES REGARDING PREFERENCE FOR TRADITIONAL OR FLIPPED CLASSES**

<table>
<thead>
<tr>
<th>Preference</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A flipped class</td>
<td>52%</td>
</tr>
<tr>
<td>A traditional class</td>
<td>20%</td>
</tr>
<tr>
<td>I have no preference</td>
<td>28%</td>
</tr>
</tbody>
</table>

**Screen Time and Flipped Videos**

One criticism I sometimes hear is that flipped learning adds screen time for children who already spend too much time in front of a screen. I am sensitive to this issue, as I believe that children (and adults) spend
far too much time in front of screens. And learning needs to take place in rich and engaging environments, not only in front of screens. I want students to walk away from their screens and go outside, play games, invent, ride bikes, and simply be kids. Thus, the question I asked was, “How does flipped video affect your total amount of screen time?” I was pleasantly surprised that, in many responses, students are replacing other screen time with a flipped homework assignment (see Figure 1.9).

FIGURE 1.9
STUDENT RESPONSES REGARDING FLIPPED VIDEOS AND SCREEN TIME

I closed out the survey with two open-ended questions, in which I asked students to tell me the disadvantages and advantages of a flipped homework assignment.

Disadvantages

A large percentage of students said that there were no disadvantages, with some being quite insistent about it. But there clearly are some challenges, as outlined in the following quotes from some of the 2,344 students surveyed:
• If you are confused, you have to wait till tomorrow or it takes a while and sometimes they don't help us, so sometimes it's really confusing.

• We can't ask questions while watching the video. We have to e-mail our teacher or wait until class the next day.

• Some of the disadvantages are that sometimes the video can be too long and I have less time for other subjects.

• I am a “hands-on learner” so I don’t get it quite as much as I do at school.

• It is difficult to stay focused on the subject.

• I have to use my computer and my Wi-Fi is awful.

• If a student doesn’t do a homework [assignment], they will not know what [is] going on, or if they are attempting to take notes and do not understand something, they cannot get another explanation that they might understand (unless the teacher lets you ask questions about the notes the next day, which our teacher does).

• Sometimes we need a teacher to teach us if we don't get it.

As I look at the responses above and the remainder of the survey, there were definitely students who had some difficulty accessing the content. This illustrates how important it is to ensure equitable access to a flipped video for all students. The other major theme is that students wanted help when they were first interacting with the content. Later in the book, I will share how these challenges are being addressed in greater detail.

**Advantages**

The students who found flipped homework assignments advantageous made the following remarks:

• We can do assignments at all hours of the day.

• You get to ask questions about homework while doing it in class.

• It helps us to do less work but understand better.
• When you watch the video first and then take notes and finally do the homework, then that makes it a whole lot easier and less stressful.
• I am more focused on the task and can learn at a better pace compared to when the teacher is teaching the entire classroom.
• You can re-watch the videos if you don't understand.
• It is easier to understand and the homework doesn't take as long.
• We have a chance to do homework inside and outside of school.
• You have time to think and it is easy for you to pass your assignments and assessments.
• My class has more time for discussion and my teacher can answer more questions that I have.
• Students do harder things in class, and I can have questions prepared for [my] teachers.
• You can do [the assignment] even if you are confused and then ask questions when you get to class, rather than not being able to do it at all.
• In a traditional classroom, the homework is a piece of paper that can easily be lost. But in a flipped class with electronic homework, we can retrieve the homework as long as we have access to a computer.
• It is a lot easier and you do [the assignment] on your own time and you learn at your own pace.

Students like having greater control of their learning. They like pausing and rewinding their teachers, they like having greater access to their teacher, and they like moving at their own pace. The survey shows an overwhelming preference for flipped homework assignments.

UNIVERSAL THEMES FROM STUDENTS

When I speak with students in flipped classrooms across the globe, it is notable that they rarely discuss the flipped videos. I have found that the following three themes often surface:
1. Access to teachers. Students need help from teachers and since there is more time for teachers to help kids, they get more help.

2. Engaging class activities. With more time in class, students report that the in-class activities connect to their learning. This adds purpose to the flipped video homework assignments. Students realize that if they do the homework, they are prepared to engage in meaningful activities in class.

3. Collaborative time. In a flipped class, students are usually working in small groups. Students find meaning through interacting and collaborating with their peers. Students like the time they have working in tandem with fellow learners.

Clearly, flipped learning is resonating with students, and they prefer it. During a recent episode of my radio show, I had the chance to interview Caroline Kurban, Director of the Center for Excellence in Learning and Teaching at MEF University in Istanbul, Turkey. The founder of MEF University, Dr. İbrahim Arıkan, was investigating innovative ways to deliver instruction when he came across flipped learning. He instructed the rector, Dr. Mohamed Shaheen, to interview university professors and find out what they thought of flipped learning. Dr. Shaheen was instructed to simply present flipped learning and let the professors talk. By the end of the forum, approximately 80 percent of the professors opposed flipped learning as a teaching methodology. Frustrated, Dr. Shaheen went to Dr. Arıkan and asked for more direction. Dr. Arıkan told him to repeat the forums and include students who attended the same universities at which the professors taught. The differences were stark. Eighty percent of the students wanted a flipped class experience. Student desires tipped the balance, and when MEF University opened its doors in 2014, it opened as the first fully flipped university in the world.
I recently received an e-mail from my friend Troy Stein, who was frustrated with his daughter’s science class. His daughter had fallen behind, and he was trying to get her caught up. He acknowledged that his daughter had made some poor choices that resulted in her being behind, but at the time of the e-mail, she was ready to learn. The class was on chapter four, while Troy’s daughter still did not understand key concepts from chapter one. Troy was on a mission. He realized that it had been a long time since he’d taken 9th grade physical science, but since he was a smart man with a Master’s degree working in the IT field, he figured he could learn enough to help his daughter.

Troy took the textbook, made notecards, and did some problems in an attempt to learn the material. But in the end, Troy was unable to help his daughter. He realized that the information was not going to come
easily for him. He then hired a tutor, which didn't help. In frustration, he posted a YouTube video addressed to the school's science department. Refreshingly, in the video, he blames neither the teachers nor the content. Rather, he questions the design of a traditional classroom. He ponders why, in the case of traditional classroom homework, the hard stuff is being done in the worst place—at home—when the students are home away from the real expert—the teacher. Troy then wonders what it would be like if his daughter had grown up in a place where parental support was low, or even nonexistent. What chance would somebody like his daughter have? He concludes the video by sharing with the science faculty how he has seen the flipped class and, more importantly, how flipped mastery transform classrooms and schools. (If you would like to see Troy’s thoughtful video, go to http://bit.ly/parentfliphw.)

The value of homework is a hot topic in the education world right now. When homework is done well, it increases student achievement. One way to take some of the stigma out of the “H” word is to adopt the flipped classroom model and follow the advice in this book. Instead of sending students home to do the “hard stuff,” we need to send the lower-level cognitive tasks home so that when students come to class, they can work on the higher-order cognitive tasks with an expert—their teacher. In this way, students will have a richer and more meaningful in-class experience. Another way to say this is: homework is the place for the light lifting and class time is the place for the heavy lifting. As educators, we need to stop sending the hard stuff home, where students may not have the ability or the support to complete the assignment. Instead, we need to have techniques that will help all students be successful and engaged learners. Flipped learning simplifies the entire homework experience. Students' homework is purposeful, efficient, efficacious, and aesthetically appealing.

We have to rethink homework! We must make it more meaningful and effective! We have to stop using homework to beat up students for noncompliance or for simply reinforcing the status quo. What we need is to transform how we assign homework. Through flipped videos,
homework becomes a pathway to deeper engagement, understanding, and learning.

Some teachers say they have tried the flipped class by attempting a few lessons and then, when many students do not watch the flipped video, they decide it just doesn’t work for their kids. These teachers say, “They won’t do it!” Then they revert to the lecture style because they feel their students will at least get something out of the traditional model. As educators, we understand that nothing comes easy the first time. And trying the flipped class is no different. Don’t just give it a try for a few lessons and throw it out. Stick with it and believe that it will work. Don’t approach it with the attitude that you will just try and if your students don’t like it you’ll go back to your old method. Walk into your room with confidence and say, “Students, we need to go deeper and learn better, and the method we will be using will be the flipped class model.” Start with confidence and poise.

Change is hard! Stick with it! And I promise that you will not look back.
Jonathan Bergmann is one of the pioneers of the Flipped Classroom Movement. He is leading the worldwide adoption of flipped learning through the Flipped Learning Global Initiative (FLGI) (flglobal.org). He works with government entities, schools, corporations, and education nonprofits. Jon has coordinated and guided flipped learning projects in the United States and around the globe—China, Taiwan, Korea, Australia, the Middle East, Iceland, Sweden, Norway, the United Kingdom, Italy, Spain, Mexico, Canada, and South America.

Jonathan spent 24 years as a middle and high school science teacher before becoming the lead technology facilitator for a school district in the Chicago suburbs, is the author of seven books, including the bestselling book *Flip Your Classroom*, which has been translated into 13 languages, and is the founder of the global FlipCon conferences, dynamic engaging events that inspire educators to transform their instructional practices through flipped learning.
In 2002, Jonathan received the Presidential Award for Excellence for Math and Science Teaching, in 2010 was named semi-finalist for Colorado Teacher of the Year, and in 2013 was named one of Tech & Learning’s 10 Most Influential People of the Year, was a finalist for the Brock International Prize for Education, and won the Bammy Award, presented by the Academy of Education Arts and Sciences.

Jonathan serves on the advisory board for TED-Education, hosts the radio show *The Flip Side*, has a popular YouTube channel with more than three million views, and has a very active blog where he discusses flipped learning best practices. You can learn more at JonBergmann.com.
RELATED RESOURCES

At the time of publication, the following ASCD resources were available (ASCD stock numbers appear in parentheses). For up-to-date information about ASCD resources, go to www.ascd.org. You can search the complete archives of Educational Leadership at http://www.ascd.org/el.

ASCD Edge Group

Exchange ideas and connect with other educators interested in inclusion on the social networking site ASCDEdge® at http://ascdedge.ascd.org/.

Print Products

*Flip Your Classroom: Reach Every Student in Every Class Every Day* by Jonathan Bergmann and Aaron Sams (#112060)

*Education Update: Tips to Help You Flip Your Classroom* (February 2013) (#113047)

*Educational Leadership: Technology-Rich Learning* (March 2013) (#113037)

*Educational Leadership: Instruction That Sticks* (October 2014) (#115017)

*Education Update: Syllabus-ted: Preparing Students for the Rigors of College Reading* (July 2016) (#116052)

*Educational Leadership: The Working Lives of Educators* (May 2016) (#116035)

*Educational Leadership: Looking at Student Work* (April 2016) (#116034)

*Educational Leadership: Helping ELLs Excel* (February 2016) (#116032)

*Educational Leadership: Professional Learning: Reimagined* (May 2014) (#114025)

*Educational Leadership: Getting Students to Mastery* (December 2013) (#114021)

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