

(1) Rachel Lotan and other researchers have shown that the students who score well on standardized tests and display other forms of academic achievement tend to, on average, participate the most in class. **What are some possible reasons for this?**

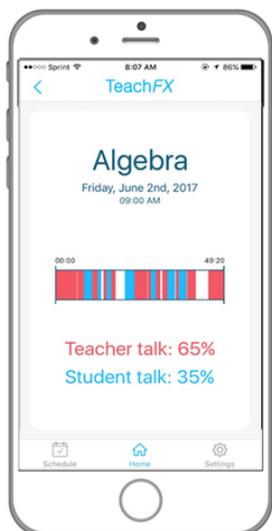
(2) **Fill in the blank:** On average, across grade levels, teachers talk _____% of the time in class.

(3) How would you define a “**test**” question versus an “**authentic**” question?

(4) **Fill in the blank:** Mary Budd Rowe showed that increasing the amount of time teachers pause after they ask a question and after students speak promotes better classroom discussion. **She found that pausing at least _____ seconds led to the desired effects.**

[Answers are at the bottom of the next page.]

What is TeachFX?



TeachFX is a tool that visualizes for teachers which portions of your class are teacher talk vs. student talk.

Simply use your **laptop, iPhone, or iPad** to analyze your class, and the app's artificial intelligence (AI) algorithm tracks your talk ratio automatically, with no extra work from you or an instructional coach. The idea is to give teachers a useful barometer of student engagement you can check every day!

TeachFX was created by me, Jamie Poskin (jamie@teachfx.com). I used to teach English and math, and coach three sports, at a high school in Harlem.

The idea behind the app is to help teachers **be more aware of discourse patterns in your classroom**. Reflecting on your classes can have a big impact on learning. In our 2017 fall pilot, teachers using TeachFX **increased student participation by an average of 12.6 minutes per class**.

How to use TeachFX

It's super simple — just click **RECORD CLASS** and we do the rest!

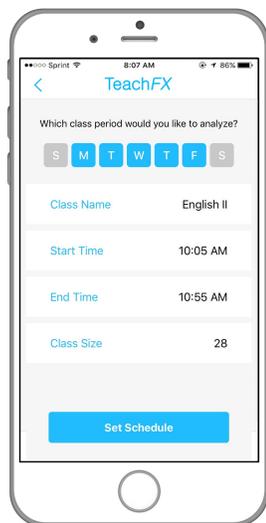
We recommend recording at least **3 classes per week** for analysis; some teachers even do it every day.

Curious how it works? Our algorithm tries to identify the vocal qualities of everyone who spoke. (Whoever talked the most is labeled as the “Teacher.”) Make sure you **record for at least 10 minutes** to give our algorithm enough time to learn your voice!



Feedback, questions, ideas? My email is jamie@teachfx.com and my cell is **650-814-2792**. Reach out anytime!

Developing a reflective teaching practice



“Remembering to turn the app on is hard. So one day I said to my students, ‘I want you all speaking more in class because speaking is what causes learning. I’m using this app to track my own talking, to make sure I’m giving you enough room to participate fully.’ Then **I asked one of my students to be in charge of reminding me to turn on the app every day.** It’s worked wonders.” —4th Grade Teacher

« On our website or mobile app, you can **set your schedule** for classes you want to analyze. This way you don’t have to worry about remembering to start and stop the app; we’ll send your phone a push notification 1 minute before your class starts.

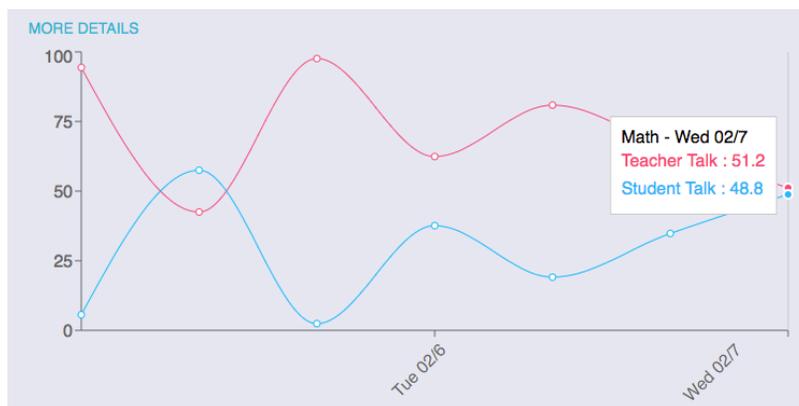
“I’m using TeachFX **to hold myself accountable.** Something I’m always cognizant of, especially teaching middle school, is **making sure the kids aren’t just sitting and listening** to me for too long. I’m always working on getting more student voice in the classroom.” —6th Grade Science Teacher

Analytics

When creating a lesson plan, **do you think about your goal for how much you want your students to participate?** »

The app allows you to set a goal for each class and track your progress over time.

“It’s been really great **comparing notes with other teachers in my department** who are also using TeachFX.” —H.S. History Teacher



Increasing student engagement (...and pop quiz answers)

On the “**Teacher’s Lounge**” section of our website, [TeachFX.com](https://teachfx.com), we post teaching strategies and educational research that can help you increase student engagement in your classroom. The “Pop Quiz” on the front was based on some of that material. Here are some possible answers to the quiz questions:

(1) Rachel Lotan showed that more student speech actually *causes* better academic outcomes: “those who participate more learn more.” An intervention that increases student speaking time will also increase learning.

Why? There are several reasons. First, speaking is the primary way the human brain learns new concepts, so students need opportunities to speak in order to learn. Second, the act of speaking itself makes a person more engaged and alert. Third, students who speak more get more frequent and rapid feedback from the teacher, helping them make connections and work through misunderstandings.

(2) John Hattie did a giant meta-study and showed that on average teachers talk 70-80% of class time. Teacher talk tends to increase as students get older and, counterintuitively, as class size gets smaller. But “across the grades, when instruction was challenging, relevant,

and academically demanding, then all students had higher engagement and teachers talked less — and the greatest beneficiaries were at risk-students.”

(3) Maren Aukerman defines a “test” question as one where we are simply determining whether our students can produce an answer we already have in mind. An “authentic” question is when you as the teacher are truly curious how the student will respond, and you want to gain access to the student’s thinking (e.g. “How did you get to that answer?” or “In your opinion, who is the most important character in the play and why do you think so?”)

(4) Mary Budd Rowe showed that increasing wait time increases student responses by 400-800%. The threshold for wait time is 2.7 seconds. But, sadly, teachers usually only pause for less than one second — almost no wait time at all!