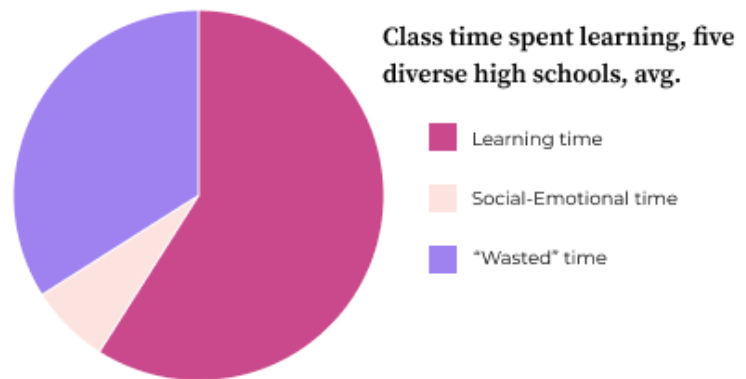


We asked students how to change school:

They didn't know. We gave them space to reflect: they had ideas. We taught them agency: they fought for change.

A school can't meet every student's needs, especially in under-resourced districts with overburdened educators. The One Fact Foundation has traveled nationwide, speaking one-to-one with over 200 high school students, teachers, and education professionals to understand how students can **identify and advocate for their needs**.

We challenged students to track learning time in class for a day: they felt **34% was wasted**. Many were too anxious to get up from their desks.



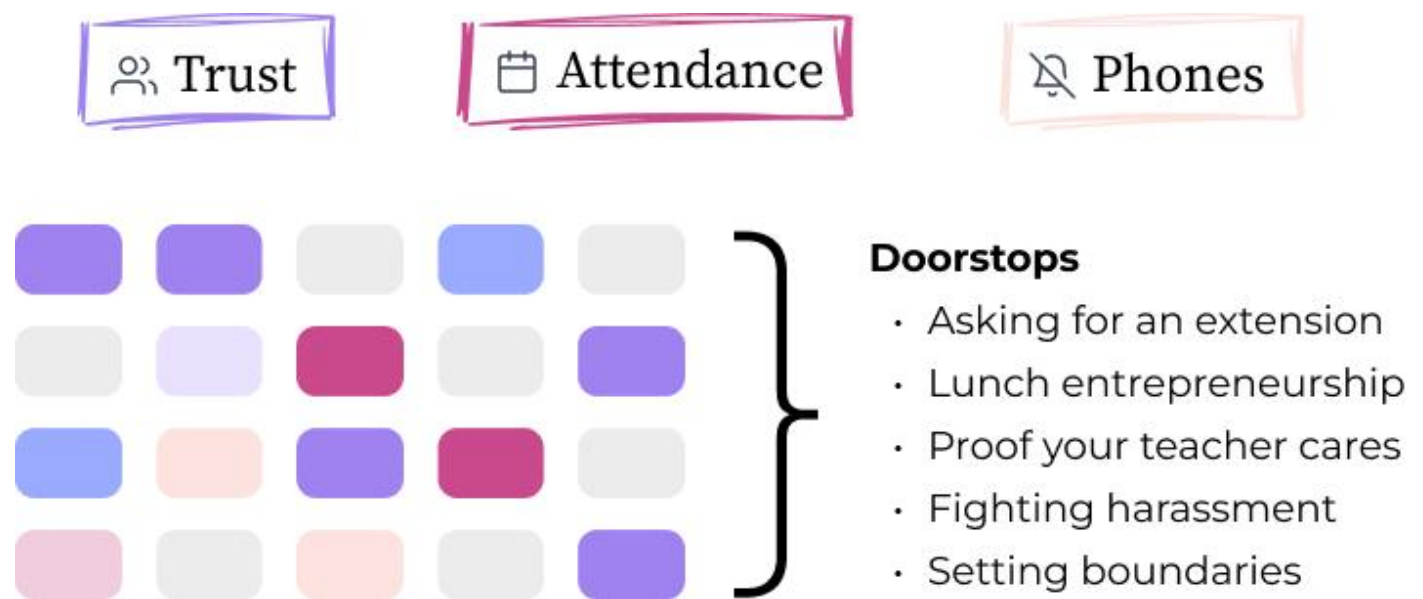
Student needs are human needs, and just as varied

Talking to 100 students one-on-one, we didn't find two with the same challenges. That means one-size-fits-all policy and practice reforms can't help every kid. **We're empowering students to find their own individualized solutions.** We go directly to students through social media, summer programs, and classroom conversations, tapping their potential—and their leverage.

When students become **trust-builders, negotiators, and boundary-setters**, whether they're asking for a one-day extension or orchestrating a school-wide culture shift, they can realize their potential as change agents, critical thinkers, and happier humans.

"I haven't slept this week. I just gotta make it to practice."

Three ways students can leverage their potential, hundreds of resources to show them how



Building trust, showing up more, and using phones less are powerful ways to kick-start success, and each is under the student's control. In **Doorstops**, our text, video, & experiential resources, we hope to show kids how to leverage these three and more as bargaining chips to meet their own needs.

Students are at the heart of education, but they are rarely asked for genuine feedback or given opportunities to reflect on school and their learning. We need your help to empower them: **we'll design open source, free resources in partnership with your students.**

“[Admin] brought three students to the PD, but nobody listened to them... nobody knew why they were there.”

The Leveraged future and your school

Every Leveraged initiative will foster student agency, belonging, and hope. Using **Doorstops**, students get individualized, research-tested strategies for self-advocacy. In our online communities, they have space to empower each other. In our hands-on, agency-building classroom conversations, we grow trust and belonging before training students to facilitate these conversations themselves. In “reversed” summer camps, counselors and students will be from the same city, so they can support each other year-round.

Excited about student agency? Share, reach out to ben@onefact.org, and read our full report below!



This research would not have been possible without:

- Allison Hartley
- Bob Peck
- Lisa Donlan
- Margaret Wu
- Sameer Riaz
- Genoveva Gilbert
- Kerri Moore
- Jaan, Meredith, Tim,
and all the wonderful
One Fact Staff

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Mission

Every top-down reform imaginable has been tried on American education, a system with gridlocked power structures where vetoes are easy to come by and student feedback is sparse. Moreover, three large, looming forces complicate change: toxic, school-specific cultural norms; varied student needs rooted well beyond any classroom; and low-trust relationships between students, their educators, and the school itself. We believe this social asphyxia can be alleviated by these powerless students themselves.

Norms. Needs. Trust. In an inner-city Southwest high school, a student spoke to me about wanting to transfer. She didn't feel safe at home, so she stayed with her grandmother one town over, waking up at 5:30am to get to school on time. She cut classes regularly, avoiding teachers she felt looked down on her and peers she was on bad terms with. She articulates the roadblocks to her transfer (family, hard-to-reach guidance counselors) and the reasons the district's alternative high school might not take her (low GPA, long waitlist).¹ Her current school has a common mix of norms: frequent fights, lots of apathy, chronic absenteeism, and a less talked about issue—hard-to-find-ism.

Kids need to go out of their way to get hard-to-find help. The student-counselor ratio is always high, the social workers are in a separate building (and always on the move), and the track coach isn't in the athletics offices, no!—he's a science teacher! **And students overcome this.** At every school I go

to, I see this exceptional, but completely unrecognized skill: finding people you need, asking strange adults for help fearlessly, and getting it done.

It's not easy for every student, especially those with social anxiety.² Teachers in a small Montana town where I sat in on classes for two days cited fear of asking for help as the main roadblock to their students' success. Students will sit at their desks rather than turn in a completed assignment; they'll avoid work they're confused about rather than communicating their confusion to a teacher.

Nationwide, students don't realize their teachers are not social workers. **Teachers don't always know how to make themselves approachable.** Students rarely hear transparent, simple statements like that, finding themselves angry at or afraid of imperfect teachers without a reason they can articulate.

The student-teacher relationship is a mystery. It's not a friendship, it's not an employment contract, and after you graduate, you won't experience anything like it again. While teachers are trained in how to handle this relationship, students are not, leading to disconnects like the one in Montana. Expliciting realities like the “teacher, not social worker” divide helps students understand the student-teacher relationship, lessens their anxiety about it, and makes it easier to ask for help—a lifelong skill. Teachers get PD, why don't students?

² Social anxiety is not an umbrella category, and requires a host of different solutions. In a suburban high school in Connecticut, a new student felt ostracized because her bus was a different color. She didn't feel she belonged, but she was just shy: her peers were welcoming and friendly.

¹ Why wouldn't an alternative high school want low GPA students? Long story short, this school district has thousands of students and limited resources.

Toxic norms and their solutions

When we think about toxic norms, we picture fights breaking out every day, kids eating lunch in bathroom stalls out of fear, and Mean Girls levels of drama. To understand these norms—which really do pervade some high schools—let’s start smaller:

“I’m not a math person.”

These phrases become toxic when you give up on a valuable skill you have the aptitude for. When students worldwide are able to succeed in math and American students struggle, it’s probably not you, it’s your environment. The toxicity grows in controlling, uncommunicative school systems: students in an urban private school told me that in third grade, they were secretly split into “smart” and “dumb” math classes and only found out years later.

When you don’t feel you have a reason to be in a class, you feel powerless. Why learn math? 42% of students considering dropping out of high school cite their main reason as irrelevant, useless classes.³ “All the math you learn in high school is useless, but if you don’t learn it, you’ll miss the value of fighting through problems on your own,” says Michael Snarski, an applied math PhD. That’s new.

In rural Montana, many students with insecurity and dismissive attitudes around math, a common harmful pattern, had never heard a good explanation before. One kid needs to hear Michael’s, another needs to hear “Math teaches logical reasoning, applying patterns, thinking in symbols, and calling BS,” a third needs empathy, and a

fourth loves math but has these dismissive thoughts toward English. That’s why we’re building waitwhythough.com, a site with video explanations on everything from why math is important to why *Lord of the Flies* is worth reading, from why school matters to why you should ask your teacher how they’re doing.

Why learn math?

Logical Reasoning Applying Frameworks Calling BS

You will have a set of rules and frameworks in any job and must become fluent in applying them: math is your practice. You start with theorems and formulas, then explain how they work in a specific case. **Math teaches you to find patterns:** when you learn to factor an equation, you’re learning to recognize familiar ideas and sort them.

Math gives you intuition on numbers: if you can tell that a market’s growth is linear or exponential, you can predict future growth; if you need to order items in bulk, you can quickly check whether a price is in the right ballpark.

Math teaches you to build on your understanding of the world: you start with a number line of 1, 2, 3... and end up about negative numbers, fractions, then irrational numbers... you have to change the way you see numbers, staying flexible at every step.



I hate math. I’m not going to be a STEM major.
Teachers ask you to show your work because communication is a critical skill you learn in math. In most subjects, communicating is easy. It’s just like talking. In math, you have to communicate about numbers and equations as clearly as if you were writing paragraphs. You will always have to explain difficult concepts to others: as a coach explains technique to their athletes or a horticulturalist using notation to explain planting patterns.

But I’ll always have a calculator!

Math is too easy for me. It’s boring.

Why learn...

Algebra Geometry Precalculus Statistics Calculus

Share your story

My geometry teacher sounds funny.

Comments

Sally K.
My algebra teacher is really annoying and I don’t want to show up to his class anymore. He has no idea how to teach.

Reply Like Private Message

Willy J.
The worksheets we get in class start with simple problems then get “progressively harder” but really there’s one super easy one. Even they’re impossible.

Reply Like Private Message

A wireframing for “Why math?” Read more at

<https://blog.benguzovsky.com/why>

Okay. Say kids get it now. They’re still struggling, bored, or apathetic in class! We need to build resources to engage them. That’s where Doorstops come in: helping kids find challenge problems, sharing behavior scripts to ask for math help—or for permission to work on something else in the

³ Yazzie-Mintz, (2010). Charting the path from engagement to achievement.

back of the class, sharing ways to prove a frustrating teacher wrong... But these Doorstops require action. Not every kid I talk to wants *more* work in math class. We create online communities for students who need empathy more than behavior change: we're bringing back mathim.com, an old chat room that looks like a calculator where thousands of students stuck in math class can go to talk, anywhere, anytime.

When we listen to student anxieties, we identify toxic norms. When we create safe, engaging resources and communities, we resolve powerlessness.

How can we decrease stress at schools with hyper-competitive cultures?

1. Observe classes, listen to students. Before every class I observe, I have 20-30 boxes drawn on a notepad, one for each student. This way, I can quickly catch boundary-testing interactions. For example, in September at a wealthy suburban school, kids noticed their teacher was tallying participation, writing down how many times each of them spoke. The room takes on an anxious energy as kids ask, jokingly, how many participation points they have. The teacher cracks a joke about it and gets back on track—I tally who laughed and who didn't on my notepad.

After class, several students stay late and ask how many participation points they have. Many of them didn't laugh at the joke. The teacher does the critical job of being approachable and providing assurance, but the norm is clear. Speaking to students at the school 1:1, it became clear that college

admissions and cutthroat competitiveness were large stressors.

2. Create resources and communities

So, the problem clearly isn't participation points, it's stress. What happens if we take the top-down policy approach? We get counterproductive debates on whether to remove weighted GPA or AP exams. Students will tell you that those changes don't get to the root of the problem—but those students' voices often aren't heard. That's another toxic norm: ignoring student perspectives.

I'll tell you what I tell students in a Doorstop:

If people arm wrestle for participation points at your school:

That's a problem. Seek help.

But how can we change the GPA culture? Everybody is trying to get into college.

Organize a **schoolwide participation point boycott**. Nobody speaks in class until participation grading is equitable. But first, storytime.

There was this reform movement called standards-based grading. Everybody got a 1, 2, or 3 on every assignment. No A's and B's. There were infinite retakes and no late penalties. This spread nationwide and... FLOPPED. Hard.

Grade-free courses only work in high trust environments where people will do the work either way. Create part of this trust and you can remove some of the most toxic grading practices.

A successful participation point boycott achieves two things: it removes a concrete, stress-inducing part of the competitive culture and it gives students a clear seat at the table—if they want to remove participation grading, they can.

Organizationally, this is not unlike the annual Day of Silence for LGBTQ+ rights. Advanced notice to teachers is essential so they can plan lessons that don't involve heavy participation for a day. Students will still participate, even if it's not graded in a trusting environment.

How do we solve deeper rooted problems?

Two even more pressing issues facing students and schools are **food insecurity—worsened by stigma eating school lunch—and bullying**. Our Doorstops and communities are rooted in the same observation-to-creation process:

An externality of the recent move to free lunch for all students (and the subsequent loss of necessary funding in some states post-covid) is that lunches had to get cheaper. Hundreds of school industrial-grade kitchens are sitting unused. Kids get in the habit of not eating what might be their only meal of the day because of gross food, long lines, or the palpable, sometimes painful class divide between the bring-food-from-home kids and the free-school-lunch kids. Snacks are a teacher's hottest commodity in food insecure areas, and run out quickly.

We're testing a school lunch entrepreneur program, providing small cash gifts to students who 1. Count how many students eat food for lunch in their school, 2. Send us

the number and 3. Send pictures of where they'll cook and how they'll keep their kitchen sanitary. We hope to partner with food influencers to spread the word and design more easy, bulk recipes that beat school lunch. Our goal is sustainable, affordable, good-tasting food that's worth the student cook's time financially.

Successful bullying interventions are hidden deep in academic literature, layered into hundreds of pages of curriculum, and driven by psychological concepts foreign to most high schoolers. We're looking for the most engaging ways to distill the research, mobilize the curriculum, and explain the key concepts—and get it all in the hands of students.

Individual Needs

We all need reflection and support to identify and resolve personal challenges. **Student needs are human needs, and just as varied.** Doorstops can provide an initial push, but over the past few months, I watched and learned from kids who did it without a push.

In a rural Utah school with only two hallways, I observed a 10-student science class. One student is making noise: pens capping and uncapping, backpack zipping and unzipping, new notebooks coming onto the desk and coming off, there's a label maker clacking... This is disruptive and everyone knows it. With more time in the principal's office than in class, this student knows, too.

They do something amazing: get up, walk to the back of the class, take a 100 piece puzzle off a shelf, and sit down to do it completely silently. This is amazing. They abandoned the class without disrespecting the teacher or their peers. They needed a break, so they took the break, ending up back in their seat 15 minutes later, quieter.

This interaction not only inspired the design of several Doorstops, it highlighted a conflict I see across school districts and state lines: the divide between students who want to learn and students who don't. Schools are forced into a binary where these groups need to be separated for successful learning, the honors/standard divide. Keep these kids in the same room and the teacher will have to spend half of class dealing with behavioral issues. Separate them too forcefully, and you create a system where gifted students branded as "bad kids" are afraid to transfer

into honors classes. Worse, kids fall through the cracks—"When I used to cut class and leave the building, I saw that teachers that seen me leaving didn't say a thing to me. They didn't care because it was one less troublemaker in school, one less stupid Black boy to teach, and one less kid in their class."⁴

The school system is not built to handle these individual needs.

But, strangely, the school system can bend. The valedictorian tends to be the one who can walk out of class and toss a frisbee in the halls, criticize the administration, go to the bathroom without a pass... This is a pattern in almost every school I've visited. In other words, motivated students with support from parents and faculty are the ones who manage to book time with guidance counselors in schools with 400:1 student-counselor ratios. These students are given the support necessary to navigate a power dynamic, proving that it can be done. Their individual needs are getting college recommendations or even making sure their application is filed, often more time consuming than the few minutes of support that could change an at-risk student's life.⁵

You don't need to be valedictorian to self-advocate. Doorstops motivate students of all backgrounds to take what they need.

⁴ Marvul, 2012. "If You Build It, They Will Come: A Successful Truancy Intervention Program in a Small High School."

⁵ Interventions as short as eight minutes have shown lifelong impacts when performed in pivotal moments. <https://www.science.org/doi/10.1126/sciadv.aay3689>.

Low-trust relationships and what trust is

Trust is psychological safety, vulnerability, and hope: “I trust that you’ll listen intently if I share something personal.” It’s intuitive to most adults: a combination of behavior (e.g. eye contact, firm handshakes, keeping a promise) and intention (mutual respect, shared values). In school, trust is impeded by a complex student-teacher power dynamic, a lack of space to address student anxieties, and a pervasive feeling of lost agency. Intention is chronically absent and behavior suffers as a result.

In low trust-environments, students don’t realize agency is an option. In wealthy high schools, that means students would rather hold it for an hour than ask to use the bathroom. In schools with large at-risk populations, that means kids cut a class where a teacher disrespected them, or get dismissed 10 minutes early at the end of the day because a peer has threatened them with violence. Another endemic issue is distrust toward the school itself: I’ve watched uncommunicative administrators make no comment or outreach efforts after a student suicide. I’ve watched live reactions to policy changes with no notice that impact students’ chances of graduation.

Students don’t forget. Perceived slights can go unaddressed, but **students have to show up like yesterday didn’t happen**. If a student then loses trust with a teacher, they’ll stop paying attention, stare at the teacher like a bug on the wall or, maybe worse, staring out the window.

Students don’t realize a teacher is tired because of yesterday’s hours-long, mandatory professional development, or stressed because they’re struggling with burnout. Students definitely don’t know their principal’s a jerk, or that the principal is great but district curricular requirements are the reason class is boring.

They’re teenagers. They feel like they don’t belong, and at high schools where they walk through a metal detector every morning, they see evidence the district doesn’t, either. Students are afraid to ask for help if they’ve never seen a peer do it. They’ve probably never seen a peer be emotionally expressive in a classroom, either.

“There are huge trust issues
all around the school
because people will switch
up, they’ll jump you.”

This environment is not conducive to trust.

Trust is going beyond the “I do work, you give me points” exchange. It’s contextual: comfort taking

your shoes off in one class and knowing that your teacher will make fun of you for that in another. Trust is using emotion words: “I’m afraid of this deadline.” It’s knowing that if some gossip comes up about you in the teacher’s lounge, your teacher 1. won’t participate or 2. in an especially high trust relationship, will vouch for you.

High trust relationships help students: in a coastal high school history class, the teacher was wearing a bedazzled chain prominently featuring the school’s mascot—there’s a basketball game tonight. Five minutes into class, a student walks in on a phone call. This is disrespectful, but common culturally in the school. Every student has been told many

times not to do this, but the opportunity to speak on the phone, especially with family, is a core value.

The teacher pauses instruction and without changing his tone says, "I don't want to fight with you today." He repeats that as he leads her outside—she protests, "I was gonna walk right back out after I put my stuff down"—he gives her a clear, lucid explanation of why she can't walk into class like that, still repeating, "I don't want to fight with you." She doesn't say anything else and walks back in and sits down, ashamed. The teacher returns to instruction, letting her sit for a few minutes before asking her an easy question: she's still nonverbal, so he walks up to her and extends his hand, "We're still friends, right? We're still friends?" Nothing yet.

He keeps making jokes in a self-effacing tone until she gives in and smiles at him. Fifteen minutes later, during transition time, she asks if she can wear his chain to the game. The teacher pauses. The chain is part of his effort to build school spirit, which he cares deeply about. He fixes the doormats at the school's front entrance every time he walks in, his phone number sits in the corner of his whiteboard, and he's honest with students. They know he cares.

"Yes," he hands her the chain. She wore it for the rest of the day, and all through the game.

Kids will run up to teachers they've never seen and accost them—"Why'd you fail my friend? Huh?! Huh?!" They will interrupt class. But they'll also ask to sit in the back of your room quietly during their lunch period, and they ask nicely. Trust is being comfortable with both sides of the coin.

If you don't have trusting bonds in school, sometimes it's a bond outside of school that empowers you. One of a student's most formative experiences is the first time an adult fights for them: arguing with a teacher who is treating them badly, getting the school to make a dress code exception, or calling them in sick on a day they weren't. The student realizes they aren't powerless to the education system. "High school students frequently describe their school experiences as anonymous and powerless" studies show anywhere from 25-70% of students are disengaged from high school, and "disengaged students attend school less, have lower self concepts, achieve less academically, and are more likely to drop out."⁶

If you don't have that support either, that's where the online community we're creating comes in: you can find support in a nationwide network of peers passionate about changing school.

"If I went to any other school I would go to classes, but I have so many triggers here. I don't go to classes where I'm uncomfortable."

⁶ Mitra, 2009. "Increasing Student Voice in High School Reform."
<https://journals.sagepub.com/doi/epdf/10.1177/1741143209334577>

Where “student-driven” & “student voice” fall short

Progressive student voice movements press for designing more inclusive curricula, creating space in schedules for social-emotional time, and changing discipline policies. This can be invaluable for student mental health, esteem, and belonging, but it rarely addresses the 34% of class time students feel is wasted. This is the time when kids are most powerless: something useless is forced on them.

Student-driven classrooms, flipped classrooms, blended instruction, and project-based learning can all address the wasted class time. These are also all indirect ways to grow trust in a school community, which alleviates the stress of difficult peer-peer and student-teacher interactions outside classrooms. However, these learning models are hard to successfully implement.

Most schools are nominally student-centered, and many make an effort to be actively student-centered, but due to systemic issues in the design of school systems, it is extremely difficult to involve student perspectives in decision-making.⁷ As a result,

Student input is largely ignored in research, policy, and practice, but earning a student’s trust underlies all three.⁸ When the development and implementation of student-centered modes of schooling is not centered around what students need, those needs cannot be fully met.

⁷ For a more comprehensive literature review and discussion of these obstacles, please see the [mission statement](#) I wrote at the beginning of this initiative.

⁸ Granted, soliciting student feedback can be extremely difficult, especially in apathetic communities, but doing so is a necessary component of building trust.

Even if these social-emotional approaches are sufficient, they are strictly limited to receptive states, which have autonomy on how they run their public schools; receptive districts and schools themselves, which have many mechanisms to resist state mandates; and receptive classrooms, where there are opportunities for teacher discretion, which is very often but not always a helpful veto.

Say 90% of states adopt a valuable, effective student-centered change. 90% of schools in those states follow suit, and 90% of teachers in those schools do the same. Already, the change impacts only 73% of students.⁹ Add another layer of vetoes—superintendents associations, parents, school boards—and you’re down to 65%.

By creating resources and communities online, **we can try to reach every student.**

⁹ Since students have several teachers, it would be more precise to say 73% of net student experiences, where 19% of students don’t experience the policy at all. And a not so well kept secret for you, my dear diligent reader of footnotes: 90% is way too high for the percentage of receptive states.

Untapped curiosity

Some states do not have vocational high schools, and tactile learners are stuck in their seats. Some states don't have student-centered programs of any kind, and kids don't use the words "mental health" in their school building. A great teacher might help a kid through that environment, or help them find a summer internship. Not every kid has that teacher.

Everywhere I go, I see potential. Students ask for book recommendations or to help teachers design their classes. They ask coaches to help fundraise for sports games. Sometimes they only ask with their eyes, afraid to speak up and share their passion.

What does it take to teach a kid to ask for help? You can't do it with a rubric. A below-grade-level 10th grader I spoke to couldn't write an analytical paragraph, but we wouldn't say they're missing the skill of "Analysis." There's a hidden iceberg of undeveloped skills and untapped potential: maybe they never learned to compare and contrast, or to put themselves in someone else's shoes. When asked a difficult question, maybe they "get it," but can't articulate the answer. Asking for help is the same way: there are mini-skills, cultural influences, and social anxieties that all need to be overcome and taught.

We plan to help students diagnose the opportunities and skills they're missing—what they don't know they don't know—through our social media outreach. When we have an audience of thousands, we can afford to say: "An 8-minute conversation with hundreds of students about to enter college changed their lives. All researchers

told them was, 'If you feel like you don't belong because of your identity, it's usually an experience everyone goes through in a new place. We can help with social anxiety and fitting in.'"

Or, "Did you know some states have vocational high schools where you can study things like plumbing, cooking, or cosmetology for four years? Go to this site to find your nearest program and this site if you don't have one." These messages won't connect with every kid, but the platform will allow us to reach thousands who do need that specific piece of advice.

Doorstops in context

The student-teacher relationship is an anachronism. It's not a friendship, it's not an employment contract, and after you graduate, you won't experience anything like it again. While teachers are trained in how to handle it, students are not. Confusion about this power dynamic causes student anxiety.

For example, a student going through a mental health crisis might be afraid to ask for an extension, scared to open up about specific health issues, which they feel is necessary. Students do not realize the teacher can address their need (an extension) without crossing the unspoken boundary into want (giving them emotional support), an anxiety I noticed listening to students regardless of background, region, and academic strength. In this case, the student-teacher relationship must meet a few preconditions for a student to comfortably ask for an extension.

- A mutual understanding that a simple explanation is enough, e.g. "I need an extension for my assignment next week because I've been struggling with my mental health, and am too burnt out to work." A teacher asking the student to elaborate would signal lack of trust.
- Trust that the teacher will respond with a version of, "That's really hard, take as much time as you need."
- Trust that a teacher won't question the student's honesty (an intention a student might perceive in the teacher's word choice or body language)
- Trust that the student isn't lying, and a history evidencing this (e.g. the student doesn't ask for an extension

every week, or the student is committed to their work and values it)

- In competitive environments where giving extensions is not normal, students might benefit from a verbal explanation of a teacher's boundaries: "I am here for your learning needs: they are my first priority. I don't care what you want. I will give you an extension (needs) but I won't ever give extra credit (want)." This boundary is contextual, varying classroom to classroom.

Students have little experience navigating boundaries like this one, and don't often have the necessary scaffolding to develop that skill. Trust is built on shared values and psychological safety, both of which tend to be missing when there are vague boundaries at play. Students don't always see opportunities to build trust with their teachers, or always know it's an option.

Here's some excerpts from our "How to ask for an extension" Doorstop, written by Meredith Gallagher, a Doorstops Initiative Lead. This is the text behind an amalgam of videos from career professionals, frank soundbites from high school students, behavioral scripts, social media content, and influencer partnerships:

"Why not give yourself a little more control over what you have to do for school?"

"Teachers like it when you ask for this stuff in person. That way they can see your request is genuine: that you need this and you'll follow through. That being said, if this idea makes you want to crawl under a desk and hide, you can always send an email."

“You’ll have to explain why you need an extension. You’ll need reasoning that isn’t too vague and dismissive (“I just need more time”) but that also isn’t a ten-page sob story (“oh my god Mrs. Parker, my dog died last week and my aunt is in the hospital and I’m having a mental health crisis and I have FOUR exams this week and . . .”). If you do have a valid ten-page sob story, your problem won’t be solved with a simple extension. Instead, think about getting some more serious academic support.

I had a friend in high school who lived alone, without either of his parents or any financial support. The authorities let him stay in his apartment as a minor, but he had to figure everything else out by himself. As you can probably tell, this was a disastrous situation for him to be in, and he needed any help he could get.

My friend decided to talk to one of our science teachers. Our teacher was able to help him find a job, and also give him some emotional support along the way. She helped my friend communicate his needs to our other teachers and to the school’s administration, so that he got any extensions and help on homework that he needed. Of course, none of this was a complete solution, but my friend was able to get the food he needed to survive, and even graduate with good grades.

This was a good strategy. If you’re in a tough place, then talking to a teacher you trust can make your life a little easier.”

“Maybe you’re thinking that, if you ask for an extension now, you’ll be tempted later to take more and more accommodations, until

you’re a flat-out terrible student. To be frank, this is ridiculous. “Slippery slopes” might be dangerous with alcohol: if you drink a lot, then your brain starts learning to crave alcohol. Addictions involve chemical changes in your brain that make your decision-making skills—your ability to “say no” later—worse over time.

Not so with extensions. Two more days on a paper does not change your brain chemistry. Instead, it makes you less exhausted. Every future deadline will be a new decision, and you will approach that decision with the same diligence and care that you have now. What makes you a good student is not that you’ve never asked for help—it’s that you care about and learn the material. Just ask for the damn extension.”

“How can I talk about my mental health?”

The conversation should fit somewhere between what you might tell a librarian after returning a book late and what you might tell a police officer after your friend goes missing.

Librarian: you would say either nothing or “sorry I’m returning this a bit late.” Saying “I’m so sorry, I was halfway through this book when I started crying, and then I didn’t want to read it anymore, but then when I got to page 157 I realized that I had just needed some sleep and that actually I could read the rest of it . . .” would just be weird. A librarian who doesn’t even know your name won’t care about all the struggles that made the book late—they just care that it’s back now.

Police officer asking questions about your friend who’s gone missing: they want ALL the details. Not just “we hung out on Tuesday night,” but “we met here, then we went there,

and we talked about this, and then we did that..."

Your teacher needs some explanation, but not a play-by-play account. Here are some lines that might be helpful when asking for an extension..."

The Doorstop has help for every student, regardless of their school's norms. We condense it into short, exciting content for TikToks and physical playing-card-sized notes:

"Essay due in two days? Haven't started?

We can help—not, like, in a plagiarism way. We're a nonprofit.

You can and should ask for an extension.

Me? I don't need an extension. You must not be familiar with my game.

In 5 years your boss is going to say: Bestie, can you work until 10pm today?

Sure Bestie!

Toxic work life balance. Learn to set boundaries and ask for help now."

Try Doorstops in your school: reach out to ben@onefact.org for customized resources, videos, and physical Doorstop card decks.

Conversations, reflection, and agency

I believe increasing student agency—helping kids **identify and advocate for their needs**—can reduce their anxiety, build their self esteem, and empower them to better shape their learning environment. The goal of this first iteration of our intervention is to begin establishing replicable practices for increasing student agency. The resources and intervention script will be free and open source.

If you're interested in trying this in your school, formally or informally, reach out to ben@onefact.org. We'll come to you!

Student-teacher relationships (STRs) built on trust and respect are essential for a student's esteem—and success.¹⁰ Student-teacher trust is one of the few factors shown to impact everything from attendance to teacher retention, even when controlled for socioeconomic status.¹¹ But all research on trust so far is correlational: there are no defined practices on how to build it.¹² While the teacher is understood to have a large role in building STRs, the student's agency in the trust-building process is unexplored.¹³

¹⁰ On trust positively affecting academic performance: Adams & Christenson, 1998; Goddard et al., 2001; Forsyth et al., 2006; Birch & Ladd, 1997; Robinson et al., 2019; Roorda et al., 2011. On facilitating reform: Bryk & Schneider, 2003, 41. On fostering engagement: Adams 2010, pp. 264–265. On psychological safety: Mitchell et al. 2010, 2008. On student attendance: Anderson et al., 2004; Moore 2010. On fewer discipline issues: Marzano, 2003. On behavior in general: Baker et al., 2008; Birch & Ladd, 1998; Hughes & Cavell, 1999; Resnick et al., 1997; Pepper et al., 2010. On being foundational to: human development (Bowlby, 1979), motivation (Ryan & Deci, 2000), well-being (Seligman, 2012), and physical and mental health (Umberson & Montez, 2010). On teacher well-being: Roffey, 2012; Van Maele & Van Houtte, 2015.

¹¹ Goddard et al. 2001, 2009; Hoy 2002; Hoy and Tschannen-Moran 1999.

¹² Interventions have had mixed success. Driscoll & Pianta, 2010; Driscoll et al., 2011; Gehlbach et al., 2016; Gehlbach et al., In press; Kincade et al., 2020; LoCasale-Crouch et al., 2018; Robinson et al., 2019.

¹³ Studies have recognized the importance of student voice in their survey design (Gehlbach et al., 2012) but

Attempted trust-building interventions have focused on changing teacher behavior rather than motivating students directly.¹⁴ This study seeks to test a trust-building intervention that provides motivating resources for students, both as an experiment in the efficacy of a new trust-building approach and in the extent of student agency in building STRs.

Research questions:

1. Will high school students respond to opportunities to take initiative in a classroom setting after a minimal push?
2. Does an intervention focused on growing student agency increase the strength of STRs in high school?

The intervention will first build rapport with students, help them identify their unmet needs in and around the classroom, then ask them open-ended questions about how and why they could feasibly change their STRs. Students are then given three resources that guide them through handling a sometimes vague and difficult classroom interaction where the teacher usually takes the lead.

The intervention will take place in January and February, following students for the remainder of their school year. Success will be measured by:

- Engagement with the resources (time spent on resources, number of times visited)
- Survey: As part of the intervention, students co-create a survey with the facilitator, complete it, then fill it out again in May. The survey evaluates STRs.

not in enough detail to tease out specific student perspectives.

¹⁴ For successful school interventions, see Paluk and Shepherd, 2012. For successful brief interventions in young adults, see Brady et al., 2020.

- Teacher qualitative reports on differences between their classes that had the intervention and didn't have it.

Participation in surveys and reports is not necessary for this preliminary stage of the intervention's design.

Intervention. The intervention will run from 10-30 minutes depending on time constraints. It will be precisely scripted to ensure all content is covered in a concise, actionable manner.

1. Build rapport with students (Be transparent about the intentions of the experiment and how it will run)
2. Ask students what their ideal teacher looks like by challenging them to explain their current STRs.
3. Ask students what they can do to improve their STRs.
4. Give them written and video resources on navigating STRs to make that improvement easier.

The teacher will not be in the room, but they will see the script and survey questions in advance when they consent.

When students walk into their class, there will be seven post-it notes on the left side of each desk, numbered one through seven in the corner. Students will be asked seven questions about their STR, and write a number 1-5 on each sheet reflecting a likert scale for that particular question.

Students will be actively involved in designing this survey, both to build rapport and to make sure the questions make sense in the context of their school and their lived experience. For example, to ask "If you notice your teacher misgraded your test, are you confident they'll fix it if you tell them?" the facilitator will first need to ask questions like, "Does your teacher give tests? How do they grade you? Do they grade fairly? Do they

make mistakes?" to ensure the question is applicable, and rewrite it with students if it is not. By asking questions about their STR, which students rarely think about,¹⁵ students will begin to think more about what they value in a teacher, and whether they're satisfied with their STRs.

The post-it notes will be collected anonymously, and the next activity will be an open-ended discussion: How can you make your classroom better?

Students may bring up ideas like:

- Respect the teacher more (listen better, come more on time, transition faster)
- Teacher respects us more (raises voice less, doesn't ask where we're going in the halls)
- Less requirements (freedom to go use the bathroom, less homework)
- more fun (sit next to my friends, more breaks)
- Less stressors (loud noise in chaotic classrooms, less emphasis on grades)
- less of a social problem (bullying, harassment, judgment, racism/stereotyping)

They will be encouraged to think about how to achieve those changes, and the facilitator will suggest that those changes start with **more emotions in the classroom, students taking initiative to negotiate with their teacher, and a solid base of trust with the teacher.**

Then, the students will receive resources that help them achieve the changes they're looking for, written and audio guides on "How to get up and take a break," "How to set boundaries," and "How to ask for an extension."

¹⁵ Cook Sather, *Learning from the student's perspective*

Measurement. We will track whether the resources were used by giving each classroom a personal access link and monitoring the number of pageviews, the average time spent on a page, and the frequency of use over the course of the year. To answer the first research question, we will use a monthly survey on teachers, asking teachers about changes in students taking initiative and in their emotional expressiveness.

To determine whether the intervention strengthened STRs (the second research question), the students will be asked to fill out the same survey they designed with the facilitator at the end of the school year.

Budget. We are able to pay teachers with gift cards both for participation (\$50) and for completing follow-up surveys (\$10 for each monthly 10-minute survey).

Brief literature review. This cross-disciplinary research draws on the psychology of motivation, the rich theory and history of belonging interventions, and methods in active listening and motivational interviewing. Strong STRs are built on care and respect — concepts drawn from attachment theory and self-determination theory.¹⁶ Most importantly, STRs are built on shared trust, which is multifaceted and difficult to measure.¹⁷ This has prompted interventions focused on growing trust and student success to be multifaceted as well, developing several new programs that involve all stakeholders of a school.¹⁸ While many of these interventions demonstrate clear success, they're dependent on continued grant funding because they attempt to change parent, teacher, and administrator behavior with large amounts of

scaffolding. Changing student behavior, as this intervention seeks to do, is much more cost effective and, as a result, longer-lasting. Designing an intervention as diverse in its methods while compressing it into a brief segment required drawing on applied therapy literature on techniques that make students feel heard.¹⁹

This work does not fit neatly into existing typologies of student voice or student-led education.²⁰ The goal is not only empowering students to work through their school's existing power dynamic, but to subvert it, with students setting new boundaries for themselves in and around their classrooms. Where a student-led classroom involves a teacher sitting in the back of a class while students present content to their peers or a student joining school board meetings, this research tests the efficacy of students as active negotiators in their space, time, and responsibilities.

¹⁹ See motivational interviewing, active listening.

²⁰ This research fits most into Fielding's idea of "Students as knowledge creators," but his work carries an ideological lean that this research does not. This research is not ideologically agnostic, but by targeting existing power structures, it is designed to work as well in a school with restorative practices as one with the strictest discipline rather than requiring the school to shift its ideology. In that sense, as a change that comes from students, its practical implications are more context-dependent than top-down ideologically defined. See "Patterns of Partnership," Fielding, 2011.

¹⁶ Hamre & Pianta, 2001; Skinner et al., 2008. Much of my understanding of motivation as it pertains to STR comes from Robinson, 2022.

¹⁷ Tschannen-Moran, 1998.

¹⁸ See School Power, Comer, and Binning et al., 2019.

The problem with metrics in education

I canceled plans to visit a large, urban school district with allegedly “student-centered” values. The two teachers I had coordinated classroom observations with quit their jobs. In January.

Teacher retention is at the heart of education, as it should be. Schools with long-tenured teachers tend to be good schools: teachers are treated well, don’t burn out, and tend to have more successful students. Schools should foster those healthy environments, the public should show more respect to teachers, and there should be state and federal policies that protect teacher jobs. But teacher retention is not a metric.

Great metrics are real time. If teacher retention is your metric, you only know you have a culture problem when your teachers are already gone. In January. The damage to students is done.

Great metrics are revealing: they point a problem to potential solutions. Teacher retention works here—there are established strategies to retain teachers—but chronic absenteeism, for example, could represent a spectrum of challenges. Case and point: school districts nationwide are struggling to keep kids in class. In the 2015-16 school year, 16% of students were chronically absent.²¹ In the 2021-22 year, one third of students were estimated to be chronically absent.²² Standardized test performance has dropped, too.

Now what?

What does the research say schools should do? The American Educational Research Association’s 2023 annual conference is titled: “Interrogating Consequential Education Research in Pursuit of Truth.” Not exactly a vote of confidence on the literature, which is heavy on surveys and correlations. It’s also extremely hard to follow gold-standard research practices (eg. pre-registering) when running the more causal studies, and results don’t always replicate.

Meanwhile, a Southern school I visited had no teachers in half their math classes, relying on Khan academy and long term, uncertified substitutes.

Clock’s ticking. There’s an idea. What about tracking how much class time is spent on learning? Group work, lecture, presentations, anything, as long as the majority of the class is attentive and there are no disruptions and tangents. This is a nontraditional metric with a rich, oddly secretive history. It’s been tracked at least since the 80s, but the data is kept private by the school districts that collect it.²³ We’re building an open source dataset collected by students.

Class time tracking is real time: one student can time a class every day and share the information. This metric shouldn’t be correlated with success—kids need breaks, kids need social-emotional time, kids need to be zoned out once in a while—but patterns, surprisingly low numbers, and class-to-class and school-school comparisons can provide useful insight.

The metric is concrete as well: high numbers

²¹ See [data from the Department of Education](#).

²² See [the Hechinger Report](#).

²³ Source: an Uber driver who told me he collected this data for Kansas City Public Schools in the 80’s.

diagnose high stress levels and can hint at lower content retention, low numbers—especially when similar classes show higher numbers—demonstrate issues in curriculum, that are easy to tinker with

There metric for schools where black students leave because “they had confederate flags put in their locker.” How do you measure the awful things students do to each other in the halls? There’s no survey question for that.

Data is hopelessly insufficient in highly contextual environments unless it is paired with genuine space for reflection. We hope to host small focus groups in school and record them anonymously, using natural language processing to track how many emotion words students use, a proxy for their comfort speaking about feelings, and their tone, a proxy for how they feel about their school experiences. No human would ever listen to these recordings.

In focus groups, or even through informal cafeteria sit-downs, the value is clear: data collection safe, anonymous, and not tied to grading or performance; it’s scalable—we can train students to run focus groups with their friends and upload a recording; it’s real time, and it’s extremely concrete measure of students’ psychological safety, happiness and stress.

Crucially, **we can teach students to leverage this data as proof their school needs to change policy and practice.**

We hope to record classes as well,

anonymously tracking how many emotion words students use and how many questions they ask, but this is harder. If students and educators know they perform better by asking more questions, they’ll ask questions for the sake of it, muddying what could be a valuable proxy metric for curiosity. Grades are the same way: if a teacher’s performance review is tied to the way they grade kids—even though a teacher’s quality is a relatively small factor in a student’s success—teachers will give higher grades, and grades will stop reflecting learning.

"They left because they had confederate flags put in their locker."

Low performance on metrics—good or bad ones—is not always a bad sign. In a Southwestern high school I visited, tardiness was endemic. There were no strict punishments for tardies, so some students often came 5-15 minutes late to class. This is a relatively small time cost for an extremely healthy learning environment. This was the only school I visited where kids didn’t feel trapped at their desks: during transition times, they got up and walked to friends’ desks, chatted, then sat back down before instruction resumed. High trust, high psychological safety.

Our solutions

We create personalized programs at no cost for Title I schools and any schools that face significant socioeconomic or geographic obstacles to student success—as well as for schools where students reach out to us themselves asking for help.

Facilitating conversations that solve schoolwide challenges. For example, chronic phone use is often seen as a policy problem: all teachers need to unilaterally agree to crack down on usage. However, when students are involved in the decision-making process, they are more likely to accept the change and more likely to reach a mutually beneficial consensus.

You're asking students to give up phones, what do they want in return? It's hard to get an actionable, feasible response to a question like this: most students either don't know how to change school at first, or their suggestions sound more like "Shorter days!" or "Better food!" than "More class time when we don't have to sit at our desks!" or "A lower student-counselor ratio!"

By fostering safe, reflective spaces for students to think about their school experiences and what they'd change—then bringing these ideas to conversations with administrators, whether that's an invite to part of a weekly PD meeting or a schoolwide assembly. When students **understand why phone use hurts teachers, their learning, and the school itself** and when **students can negotiate for their unmet needs**, school becomes a place of trust, not powerlessness.

This is not to say students should be involved in every decision: you can't lead by

committee. But giving them a voice—and not only to the outspoken student leaders, but to every student—is life-changing.

Context-specific Doorstops. Every school has its own mix of characters and challenges: when we get the opportunity to work closely with educators and students to help overcome those challenges in context, our resources get better for students nationwide.

Agency-building classroom interventions. Go back a few pages to "Interventions, reflection, and agency" to find out what we're piloting in a select few high schools and how it can apply in your classroom!

Bringing data to students and the school community. The One Fact Foundation is building healthcare AI to make hospital prices transparent, machine learning models to track cancer risk from decades-old nuclear test launches, and bringing our data science expertise to education. Leveraging the metrics we propose in the previous section, "The problem with metrics in education," we teach students how to analyze their emotional growth and academic achievement. We teach kids a lifelong data science skillset and how to use it, exploring how to make their day-to-day school experiences better.

Summer camps for at-risk kids. When kids learn experientially in new environments, have space to build connections, and bring those connections home, they'll be more successful when they come back to school. We're designing that experience for summer 2023 starting with kids from the Bronx, who'll mix water skiing and rock climbing with chats on ways to be happier back in school.

Vision: Open Source, Aggregated Content for Students

We envision a world where every student knows what they need *and* how to start meeting those needs. We work to realize this vision by spreading self-advocacy and trust-building skills nationwide. There are three core elements to our strategy:

- Build online communities where students share anxieties about school
- Create a well of accessible, expert-written resources
- Design short, effective interventions that students can run themselves

Underlying each component is trust, which is essential for any healthy community.

When students trust in their leverage, when schools are spurred to authorize student perspectives—education will never be the same.

Students are the most powerful stakeholders in education. Without them, there is no school. They are also the stakeholders least aware of their power.

We won't try to say it better than Professor Alison Cook-Sather: "When students have the opportunity to articulate their perspectives on school, they not only offer insights... They also have an opportunity to hone their own thinking—to think metacognitively and critically about their educational experiences... students not only feel more engaged but are also inclined to take more responsibility for their education because **it is no longer something being done to them but rather something they do.**"

We don't know how they'll reshape school, but we want to give them access to the best information possible to inform their choices. We envision search engines where students can search for Doorstops by typing in an emotion and open source content aggregators where anyone can create Doorstops.

Through community, agency, and equitable access to information, students across socioeconomic background can better identify and advocate for their needs.

This year, we strive to reach a million students online and a thousand in person. Next year, we hope hundreds of thousands of students will talk about emotions in school for the first time, have more trusting interactions with peers, and feel that they can change the system. We hope to go beyond high schools, beyond the U.S., and beyond school itself, because education is not restricted to classrooms.

If you identify with this report, please [reach out](#), share with educators you admire, and [send a student a Doorstop](#).

It is a true honor to pursue this work, to be trusted to listen to kids, help them grow, feel safer, breathe easier, and stare out the window a little less often.

Yours,

Ben, Jaan, and the whole team at One Fact