

Individualized and Scalable: Building agency and esteem through Doorstops, personalized online modules for at-risk high schoolers

Ben Guzovsky¹

I spent Fall 2022 on a leave of absence from Princeton, sitting in on high school classes in 15 states. At every school I've visited, kids feel powerless — school is inevitable, something that happens to them. But without students, there is no school: they have more agency than they think.

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 reshape their learning environment. Doorstops, personalized self-advocacy resources delivered to at-risk students online, can achieve these goals. Doorstops range from "how to ask for an extension" email templates and behavioral scripts for correcting a teacher's mispronunciation of your name, all the way up to playbooks on school culture shift. Students use the digital interface for Doorstops by selecting an emotion or issue from a carousel of options, which redirects them to context-specific resources and strategies.

Existing interventions and digital learning resources are remedial rather than empowering: they project a message that the student is behind and needs to catch up. Instead, Doorstops will show students their potential for agency and share individualized strategies to realize it—addressing their underlying anxieties toward school.² All Doorstops, research methods, and results will be free and open source online.

Project Proposal

The goal of this project is to test the efficacy of Doorstops in improving student social-emotional wellbeing over the 2023-24 school year. An early test of five Doorstops was conducted in April 2023 during small group in-person meetings with 70 students, leading to qualitative improvements in mental health and belonging.³ Since then, over 100 Doorstops have been created with input from educators, administrators, and students. At five diverse high schools in the Northeast, all ninth grade students will receive full access to Doorstops—their engagement with the platform, school attendance, and self-reported wellbeing will be monitored over the course of the school year and compared to a sample of their peers in tenth grade.

56% of NYC 12th graders were chronically absent in the 2021–22 school year.⁴ High school students nationwide describe their experience “as anonymous and powerless.” Chronically

¹ Princeton University, guzovsky@princeton.edu

² See Cook-Sather, *Authorizing students' perspectives* for the theoretical roots of this concept.

³ Feedback included, “It was honestly really FUN” and “I wish we had longer.”

⁴ NYC DOE Data, available [here](#).

absent students have lower self esteem, achieve less academically, and are at higher risk for dropping out, hindering their ability to be economically productive or avoid school-to-prison pipeline.⁵ Contributing factors range from severely low income levels and community inputs to peer influence, school culture, and institutional racism.⁶ By equipping students with the skills and psychological safety necessary to navigate school environments they see as corrosive and hopeless, this work will soon provide scaffolding for them to attend more classes. Moreover, the online programming—designed for engagement and delivered through social media—can reach every student at no additional cost: for 10,000 at-risk students, 10,000 will be better equipped to graduate.

Going to students directly requires individualized solutions. The five schools participating in this pilot program will be the first to engage with this novel approach to empowerment.⁷ Their educational outcomes and well-being will be measured during the 2023-24 school year, along with those of students without access to Doorstops.

Research Question: Do modules focused on growing student agency effectively improve well-being, attendance, and engagement for at-risk high schoolers?

Success will be measured by:

- Engagement with online resources: pageviews and link clicks.
- Self-reported student metrics: After returning to school, students will receive a survey assessing proxy metrics for self-esteem and well-being.
- Absenteeism: Student attendance will be compared to the aforementioned samples of their peers controlled for socioeconomic status.

Current work does not address students' underlying anxieties toward school

To meet the multifaceted needs of students, existing interventions multifaceted approaches, developing several new programs that involve all stakeholders of a school, programs that may not have meaningful impacts alone.⁸ Researchers have tried a myriad of combinations: community, family, classroom, and extracurricular programming⁹ along with similarly multimodal school policy changes.¹⁰ A focal point of education research today is improving these

⁵ Mitra, 2009. "Increasing Student Voice in High School Reform."

<https://journals.sagepub.com/doi/epdf/10.1177/1741143209334577>.

⁶ <https://journals.sagepub.com/doi/epub/10.1177/0042085911427738>.

⁷ It is unclear whether IRB approval will be necessary for this study. If so, recruitment will start upon IRB approval.

⁸ Two studies reach this conclusion: Miller A. K. (2003). *Violence in U.S. public schools: 2000 school survey on crime and safety*. Retrieved from http://nces.ed.gov/programs/quarterly/Vol_5/5_4/3_5.asp.

Reimer M., Smink J. (2005). *15 effective strategies for improving student attendance and truancy prevention*. Clemson, SC: Clemson University, National Dropout Prevention Center/ Network. College of Health, Education, and Human Development.

⁹ <https://journals.sagepub.com/doi/epub/10.1177/0042085911427738>

¹⁰ <https://link.springer.com/article/10.1007/s10567-020-00317-1>

programs' cost-effectiveness as they can be prohibitively expensive,¹¹ with one mentorship initiative's incremental cost being \$500 per additional day of attendance.¹² Lower cost programs are usually only effective for certain students. For example, an intervention aimed at changing parents' beliefs about attendance cost only \$6 per additional day and reduced total absences by 6%, but the method wouldn't be scalable. The cost was fixed, so spending more wouldn't further grow attendance.¹³ 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.¹⁴

No current programs work to directly change student behavior. As a result, kids' fundamental feeling of powerlessness and anonymity in school, a proven cause of absenteeism and high dropout rates,¹⁵ goes unaddressed. Why leave students afraid to get up from their desks? More importantly, interventions that require school policy change or large funding will never reach every school, but by going directly to students, we can try to reach every kid. Changing student behavior and supporting them online in addition to in person is much more cost effective than full in-person scaffolding and, as a result, more sustainable. This research seeks to show that students' unmet belonging and esteem needs in school can be addressed with online resources during the school year.¹⁶

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.¹⁷ This work does not fit neatly into existing typologies of student voice or student-led education (Fielding, 2011).¹⁸ 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.

¹¹ See Dr. Grossman's work in an ongoing RCT Evaluation of High-Dosage Personalized Instruction (2021-2027).

¹² Guryan, J. et al. The Effect of Mentoring on School Attendance and Academic Outcomes: a Randomized Evaluation of the Check and Connect Program Working Paper-16-18 (Northwestern Univ. Institute for Policy Research, 2017).

¹³ <https://www.nature.com/articles/s41562-018-0328-1>

¹⁴ See School Power, Comer, and Binning et al., 2019.

¹⁵ Mitra, 2009. "Increasing Student Voice in High School Reform."
<https://journals.sagepub.com/doi/epdf/10.1177/1741143209334577>

¹⁶ Importantly, these resources are not EdTech in that they could not have the same effect on paper. Only their distribution—through social media—requires technology.

¹⁷ Namely self-determination theory (e.g., Skinner et al., 2008). To help students find autonomous rather than controlled motivation, this research does not modify existing incentive structures, but provides a space for experimenting with autonomous practices.

¹⁸ Where Fielding's idea of "Students as knowledge creators" requires schools shift their ideology to make space for students, this research is designed to work as well in a school with restorative practices as one with the strictest discipline—not requiring the school to shift its ideology. See "Patterns of Partnership."

Program Implementation

If you could go back to high school, what would you do differently? Doorstops are predicated on two ideas: the list of changes is long but finite, and pairing every student with a solution to their individual unmet need is possible. Students don't realize they're at the heart of education, and that realization can be life-changing. For example, students nationwide accept that the bathrooms at their school are disgusting, with many choosing to not use a bathroom during the seven hours they're at school. Using the bathroom is a fundamental need, but students assume this is the way it has to be. First, students have to identify that unusable bathrooms are a problem, like by seeing the issue in a Doorstop or in their social media feed. Through Doorstops, students can access fundraising email templates, phone scripts to use with their administrators, strategies for collecting data from peers around frustration towards the bathrooms, fundraising email templates, and fun, actionable steps to get PR attention. Change becomes possible. Variations of this process can be applied to schools with a small selection of classes, cyberbullying and severe mental health issues, school lunch nobody eats, unhealthy student-teacher relationships, and so on.

Measurement

At the end of September, ninth grade (intervention group) and tenth grade (control) students will receive a survey assessing proxy metrics for success. This will include a modified STRS,¹⁹ self-reported stress, and novel quantitative proxies to track engagement (eg. "I learned more/less than I expected" and "I had a back-and forth conversation with a teacher every day/once a week/once a month/never").²⁰ Students will take this survey again in December and for a final time in April and their attendance data will be shared by their schools. Results will differentiate students who regularly engaged with the online resources (tracked with individual, anonymized links) from those who didn't. Ideally, additional funding will be secured in the future to conduct surveys on their postsecondary success and wellbeing.

Every effort will be made to preserve the anonymity of students in relation to their data.

Background

Ben Guzovsky is a junior and history major at Princeton University. He has done extensive fieldwork in American high schools, conducting over 100 one-on-one conversations with students in 15 states.²¹ He runs Doorstop Education,²² a platform for students to learn self-advocacy skills and meet their unmet needs. Prior to conducting this study, he taught a one-day course to 70 students piloting the methodology.

¹⁹ <https://education.virginia.edu/documents/ehdstrs-professional-manualpdf>

²⁰ Parent and teacher evaluations are not used because the goal of this program is evaluating students' self-concepts rather than others' perceptions. Future studies may include such evaluations.

²¹ doorstopped.org/pdfs/leveraged.pdf

²² doorstopped.org