



Education Challenges

Winter 2016

Flip The Classroom in Resource-Limited Settings

New education models, like flipping the classroom or deskilling a class curriculum, offer a solution to the vast teacher shortages in the developing world. Deliver an already-proven curriculum to 250 students in three months, with a vision to help 50,000 students in two years. A successful model will be evidence-based, will include continuous monitoring and testing, and a commitment to change if evidence suggests your approach is not working.

The Problem: Learning is impossible without adequate classroom resources, particularly when the resource is a teacher. Seventy percent of countries in sub-Saharan Africa suffer from teacher shortages.¹ The problem will only get worse. By 2030, 2.2 million new teaching positions will need to be filled across Africa, and another 3.9 million will need to be filled as older teachers retire.² Exacerbating this is teacher absenteeism. Up to 25 percent of teachers in the developing world will be absent from work on any given day.³

The Proven Solution: Fortunately, recent studies prove that learning does not necessarily demand a trained teacher. Organizations like Khan Academy are proving that a “flipped classroom” model can deliver quality education.⁴ In this model, students learn lessons at home, and classroom time is spent doing activity-style homework assignments. A flipped classroom can be run by a trained facilitator, rather than an expert teacher. Recent studies have shown that flipping the classroom can result in a dramatic increase in student learning – at times nearly doubling test scores.^{5, 6}

A second proven intervention is a de-skilled paper curriculum, which can be delivered to students via trained facilitators. An example of this model is Bridge International Academies’ “academy in a box”.⁷ The model has produced substantial and statistically significant results across a variety of primary school subject measures.⁸

¹ <http://www.uis.unesco.org/Education/Pages/world-teachers-day-2015.aspx>

² <http://www.uis.unesco.org/Education/Pages/world-teachers-day-2015.aspx>

³ http://www.academia.edu/2380578/Teacher_Absenteeism_and_Teacher_Accountability_USAID_Paper_

⁴ <https://www.khanacademy.org/about>

⁵ Flipping the Classroom. Cynthia Brame, Center for Teaching, Vanderbilt University. <http://cft.vanderbilt.edu/guides-sub-pages/flipping-the-classroom/>

⁶ Improved Learning in Large Enrollment Physics Classroom. https://info.maths.ed.ac.uk/assets/files/LandT/Deslauriers_Science_May2011.pdf

⁷ <http://www.bridgeinternationalacademies.com/approach/model/>

⁸ http://www.bridgeinternationalacademies.com/wp-content/uploads/2016/07/The-Bridge-Effect_Working-Paper-Draft-V4_Website2.pdf

Your Challenge: We will award up to \$20,000 to a social entrepreneur with a plan for teaching 250 students (about five classrooms) with a three-month pilot program, with a vision to expand to help 10,000 students (about 200 classrooms) over the next two years.

Because the effectiveness of a flipped classroom depends on external variables, you must have a localized plan that can manage uncertainty, including:

- An evidence-based model which identifies the strongest factors limiting quality educational access, specific to the region in which you will operate
- An evidenced-based model of how and why your intervention will boost educational learning outcomes in the long run
- A plan for continuous testing and evaluation of the program
- A commitment to change the plan if the evidence suggests that the approach isn't working

Market Information:

- Geographically, the need is enormous. Khan Academy had worked with dozens of schools, and their model has been used in over 20,000 classrooms in 126 countries.⁹ Bridge International Academy has hundreds of schools across southern and western Kenya and plans to educate 10 million children across a dozen countries by 2025.¹⁰
- Measuring impact matters. Although flipped classrooms and de-skilled curriculums are generally a proven intervention, there is not yet consensus on what specific curriculum or specific model delivers the greatest impact to students. For instance, some programs show flipped classrooms are not as effective for non-numerate subjects.¹¹ Measuring impact in a methodologically sound way is especially important in this challenge.¹² A winning idea will include a strong focus on measuring impact on student performance, (for example, by comparing test scores to a control group).
- Most students in developing countries lack reliable internet access. Solutions should be tailored to these students, not to students in internet-heavy countries.
- Past winners of this challenge include [RARE Education](#) (Kenya, Tanzania), [vChalk](#) (India), [REACH Uganda](#) (Uganda), [sharEd](#) (India), and [Enlightened Humans](#) (Bangladesh).

Ready To Start?

Download a First Round Application Packet at www.d-prize.org/application.pdf

Questions? Email the D-Prize team at help@d-prize.org

⁹ <https://www.edsurge.com/khan-academy>

¹⁰ <http://www.bridgeinternationalacademies.com/company/about/>

¹¹ <http://www.economist.com/node/21529062>

¹² Givewell offers a guide for thinking about monitoring and evaluation in the education sector here: <http://www.givewell.org/international/education>