

Researchers from Oregon State University, the World Bank, and Innovations for Poverty Action (IPA) as well as partners at the Rwanda Education Board (REB) and Akazi Kanoze Access conducted a Randomized Controlled Trial (RCT) to study the impact of the Educate! Exchange, our Education System Solution in Rwanda.



## EVALUATION CONTEXT

Educate! aims to tie education directly to life outcomes. In 2019, results from a long-term RCT established rigorous evidence that we have achieved that link with [our flagship School Solutions model](#): Four years after students participated in the in-school model, we saw strong and lasting impacts on their soft skills, coupled with significant improvements in education and gender-related outcomes. In response, we have challenged ourselves to answer the question:

Can we recreate this in-school impact by working through the education system in Rwanda?

Our Education System Solutions aim to do just that — partner with governments to sustainably integrate our practical, skills-based model into national education systems across Africa. In Rwanda, we partnered with the government to test a teacher training and support program called the Educate! Exchange, which is the focus of this evaluation.

“As we look at the education landscape of innovations working at a local level, it often does not translate to the systemic change needed to solve the global learning crisis.

While there is growing evidence around which educational strategies improve children’s learning, we know much less about how to translate this into improved policies and practices at scale.”

- Brookings (2018) *Millions Learning: Scaling up quality education in developing countries*.

We began this education system support work in Rwanda knowing that it would be a more challenging path to impacting youth life outcomes than our in-school model in Uganda. Rather than selecting and training our own staff to deliver a skills-based learning experience as we do with our in-school model, Education System Solutions aims to achieve sustainability and scale by 1) changing policy, 2) training and supporting government teachers to provide this experience, and 3) creating sustainability structures for this behavior change to last. This requires coordination within the existing multi-stakeholder system, something we’ve seen very few organizations in the space achieve. The experience of Pratham, a peer education organization that works iteratively towards systems change and has achieved success doing so, stands out as one of the few great examples of the complexity of this work—scaling a model from proof of concept to a system-level intervention. Reflecting on their journey, their long-time research partners shared, “It took five RCTs and several years to traverse the distance from a concept to a policy that actually could be successful on a large scale” (Banerjee et al., 2017). Just like Pratham, as a learning organization, we must commit to the same long-term learning process and our hope is that by focusing on iterative and ongoing research and development, we’ll be able to create the evidence and learning necessary to create impact through an education system.

In an effort to create lasting change, we partnered in 2015 with the Rwanda Education Board (REB), the government’s agency overseeing curriculum and teacher development, to update the national Entrepreneurship curriculum, a required course for secondary students. This technical advisory support was then followed up with our teacher support model, the Educate! Exchange. The Educate! Exchange aims to build sustainable change by partnering at the system level with REB to train and support teachers in their efforts to create hands-on, practical learning experiences that give youth the skills they need to succeed in life after school. We launched this rigorous external evaluation to contribute to the limited evidence of the sector and to help us learn and improve upon our approach. The core questions asked by the RCT are:

1. Did Educate!'s teacher training and support change government teacher pedagogy?
2. Does that teacher pedagogy change translate into a significant impact on youth life outcomes, i.e. skills, educational outcomes, and economic activity?

Research completed in partnership with IPA, the Rwanda Education Board (REB) and Akazi Kanoze Access

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# EVALUATION RESULTS

We saw, in our first attempt at a system-level solution, that the Educate! Exchange measurably impacts teacher behavior. This impact on teachers translated into impact on several youth outcomes, especially for girls, but left room for improvement in others, particularly for boys.



## Teachers

Teachers who participated in the two-year Educate! program improved their adoption of and adherence to Skills Labs, a key teacher training component to support more interactive, student-centered teacher pedagogy.

- Increased scheduling of longer class sessions required for Skills Labs
- Increased likelihood of using active instruction techniques that are a critical component of Skills Labs, like debates and role playing
- Improved adherence to the Skills Lab lesson structure

Teachers are **19%** more likely to use student-centered active instruction techniques

## Students<sup>1</sup>

Students of participating teachers, especially girls, saw positive impacts in several key outcomes, but more could be achieved, particularly for boys. Notably, just six months after completing secondary school, youth demonstrated improvements in outcomes like grit and university access that correlate with long-term economic success.<sup>2</sup>

### Skills

- No consistent increase in skills at end of program, but impacts on key soft skills of grit and patience emerge six months after graduation

### Education

- Participants are 2x more likely to enroll in university
- Women: 167% higher university enrollment rate than the control group

University enrollment doubled across all students and increased **167%** among young women<sup>3</sup>

### Economic Activity

- **Business ownership** increased for male and female participants
- **Wage employment** impacts varied by gender
  - Men: Decreased wage employment, suggesting they're moving from wage employment to business ownership
  - Women: No decrease in wage employment by women, suggesting they're embracing new concurrent economic opportunities, not trading existing activities
- **NEET**, "not in education, employment, or training," rate decreases for young women

<sup>1</sup> As part of the RCT, we conducted two follow up rounds. The teacher data and some student data is from a follow conducted at the end of the program, prior to students completing secondary school. The second follow up was conducted 6 months after youth graduated from secondary school. Impacts reported on Education and Economic Activity are from the second follow up.

<sup>2</sup> For example, tertiary graduates in Rwanda earn an average 28.8% more than those who complete secondary, and female tertiary graduates see even larger returns to education, earning 32.9%. (Montenegro, Claudio E. and Patrinos, Harry A., "Comparable Estimates of Returns to Schooling Around the World," Policy Research Working Paper 7020, World Bank, 2014.)

<sup>3</sup> While it's early, this increase in university access in Educate! Exchange schools is very promising. According to research done by the World Bank, in Rwanda, young people who complete tertiary education earn, on average, an average 28.8% more than their peers who complete secondary. (Ibid.)

- **Income** decreased from a small base in the six months after secondary graduation.<sup>4</sup>
  - This marginal decrease in income youth reported from the 2 months prior to the survey may occur because youth within the treatment group were more likely to start and run new businesses, which could be less mature and more volatile than those owned by youth in the control group.
  - The relatively small short-term income difference matches the impacts seen in a [secondary scholarship program in Ghana](#), where a focus on higher education led to treatment participants enrolling in tertiary at a higher rate. This greater focus on education could contribute to a decrease in income.

It's still too early to tell what the long-term impacts of the model will be on youth. Evidence, including from Educate!'s program in Uganda, suggests that the impact of improved skills and education investments on other outcomes can take time to manifest and may grow stronger over time.<sup>5</sup>

Overall, these results indicate that it is possible to achieve some youth-level impacts through the system, and we are eager to continue working to deepen them.

## KEY TAKEAWAYS

- **We achieved meaningful but not full success as defined by our Theory of Change: impacting teacher pedagogy and improving several student outcomes.**  
The Educate! Exchange measurably impacts government teacher behavior in just two years. Teachers created more interactive, student-centered learning experiences. This translated into impact on several youth outcomes, including a major increase in university enrollment and broadly positive outcomes for girls, but not on all outcomes we hoped to see, especially for boys.
- **This evaluation is R&D for the sector and for us, and we're committed to the learning process.**  
This RCT is one of the first evaluations of an upper secondary teacher training and support program integrated into the education system and its impacts on learners. It's also our first attempt at the challenge of large-scale, system-level change. As such, this evaluation's core purpose is research and development — helping us to fulfill our commitment to the learning process of understanding our initial impact and iterating upon our approach in the long term.
- **Based on these results, we're making program improvements to strengthen the link between quality education and improved life outcomes.**  
While we saw some improvement on several key student outcomes, the link between improved teacher pedagogy and life outcomes was not as strong as we'd like to see, particularly for boys. As we compare the Rwanda model to our proven model in Uganda, we note a few key learning areas and are already testing ways to deepen student impact through the system:
  - Strengthening 1:1 student support through mentoring,
  - Installing and leveraging system incentives like competency-based assessments, and
  - Further analyzing these results to better understand our impacts on young men and women.

<sup>4</sup> This decrease in income was marginal: In the follow up conducted 6 months after youth completed secondary school, researchers asked youth to report income from the prior 2 months. Youth in the treatment group earned 13% less than their peers in the control group. This translates to about \$3.40 less over the previous 2 months. Additionally, the overall income of youth in the sample is comparatively small: average annualized income for the control group 6 months after completing secondary school was \$151. For context, a quasi-experimental evaluation of Educate!'s model in Uganda found that the control group was earning \$172 while still enrolled in secondary school.

<sup>5</sup> [Educate!'s Uganda RCT](#) showed the growth and application of key transferable skills four years after secondary completion.

## REFERENCED RESULTS

For ease of understanding, the percentages below are relative impacts unless otherwise noted, calculated by taking the absolute impact and dividing by the comparison group mean. However, please note that in the researchers' report and other documents we more frequently report impacts as absolute percentage point increases.

Teacher Pedagogy	Impact at End of Program
Scheduling longer class sessions as required by Skills Lab	650%* increase
Use of active instruction techniques	19%** increase
Skills Lab adherence: Active instruction during <i>Build</i>	13%* increase
Skills Lab adherence: Active instruction during <i>Practice</i>	19%** increase

Student Skills	Impact at End of Program	Impact 6 Months Post-secondary Completion
Grit, Overall	n.s.s.	0.10 SD** increase
Patience, Women	n.s.s.	15%*** increase
Patience, Overall	16%** increase	10%** increase

Student Education Outcomes	Impact 6 Months Post-Secondary Completion
University enrollment, Women	167%*** increase
University enrollment, Overall	100%*** increase
Self-financing university Overall	6.2%** increase

Student Economic Outcomes	Impact 6 Months Post-Secondary Completion
Business ownership, Overall	14%** increase
Business ownership, Women	16%* increase
Wage employment, Women	n.s.s.
Wage employment, Men	15%* decrease
NEET: not in education, employment, or training, Women	12%** decrease
Concurrent business ownership + Wage employment, Women	119%*** increase
Income from prior 2 months, Overall	13%** decrease
Self-financing of business, Overall	64%* increase
Student Business Club profits financing businesses, Overall	14%* increase
Non-agricultural business ownership, Overall	27%* increase

\*\*\* Statistically significant at 1%  
 \*\* Statistically significant at 5%  
 \* Statistically significant at 10%  
 n.s.s. Not statistically significant