

Connecting Entrepreneurs and Academics to Improve Education

A partnership between Kirsten Lee Hill Consulting and 4.0

Background

There is a persistent divide in the field of education between academic research and grassroots entrepreneurs working in their local communities.

On one hand, when ideas reach the stage of being trialed in schools by university researchers who have received rigorous training in research methodologies, it is often on a large scale – perhaps in an entire district to the tune of millions of dollars, with a long timeline that ends in academic journals.

On the other hand, grassroots innovators who have a deep understanding of the needs of their local communities want to test new ideas with small groups of people in quick periods of days, weeks, or months on small budgets – often under \$10,000. These entrepreneurs typically rely on casual feedback from teachers, families, and students if they want to

know if their ideas have been successful. They tend to lack access to the wealth of research expertise offered by top universities.

There is a need for a simpler, smaller, yet still rigorous approach to research that allows entrepreneurs to more effectively measure the success of their ideas. If the best innovations in education are to transform schooling, we must push the boundaries of traditional research - we must “right-size” research.

The Opportunity

With the support of Hassan Hassan, the CEO of 4.0, a national non-profit organization that invests annually in promising entrepreneurs, Dr. Kirsten Lee Hill, Ph.D. last year created the organization’s first-ever formal partnership between academics and early-stage entrepreneurs, the Measurement & Evaluation Collaborative (M&E Collaborative). Hill’s brainchild,

the M&E Collaborative is funded by 4.0 with support from the Walton Family Foundation, the Charles Koch Foundation, and the Bill & Melinda Gates Foundation.

One of the goals of the collaborative is to demystify research and make it more accessible to those doing innovative work. “We are maintaining the rigor people see in larger-scale experiments but making it appropriate for the size (of the project),” Hill says. “We were able to do this by partnering top minds in research with really incredible, innovative entrepreneurs,” Hill says.

The Process

The thinking behind the M&E Collaborative began with Hill’s appointment as an external evaluator at 4.0 two years ago. She noted that a majority of 4.0’s founders for the past eight years had been relying on anecdotal evidence from their communities to assess the success of their experiments. This type of evidence can be difficult to pitch to philanthropic funders. Hill, who has a passion for education reform, was inspired to create a way to build credibility for these ideas.

Hill pitched the idea of the collaborative to Hassan in summer 2018

after engaging in ad hoc coaching with founders. Her thought leadership led to her promotion as 4.0’s first-ever “Researcher-in-Residence” in 2019.

Under Hill’s leadership of the collaborative, 4.0 last year recruited and hired four Ph.D-level researchers, two doctoral students who are 4.0 alum, and five 4.0 alumni who participated in ethical research training. This expansion allowed the organization to move from Hill providing limited 1:1 coaching to teams of entrepreneurs, to over 400 hours of individualized feedback, 80+ of which were 1:1 coaching.

“This [M&E] collaborative is a unique opportunity for entrepreneurs who are changing the world to work hand-in-hand with researchers to create rigorous, but practical measures of success.”

- Kirsten Lee Hill

Hill found that 4.0’s founders were eager to engage with researchers: over 70% of the entrepreneurial teams at 4.0 signed up for one-on-one coaching with the collaborative; 100% ultimately received coaching.

Hill additionally created a unique peer review process to afford each team of entrepreneurs the opportunity to have

their own assessment plans vetted by three to four members of the collaborative. Over 95% of participating entrepreneurial teams required revision of their pilot plans based on peer review feedback, as they were not sufficiently ethical or their assessment methods were not rigorous enough. This greatly raised the standards of these educational experiments.

The Inspiration

Entrepreneur Alpana Shitolé ran into a stumbling block when she was accepted as a fellow at 4.0. Shitolé was pursuing a radical idea with her venture Frolific, that ditched conventional notions about the importance of standardized testing and traditional exams and instead focussed on instilling and measuring the attributes of personal leadership like emotional intelligence, resilience, and self-reinvention. For example, children learned that accepting risk in life is less about inert courage and more about managing feelings of loss. This was taught through an activity where children were offered a choice to either take five dollars, or, based on a coin flip receive ten dollars or no money at all. The children then reflected on their decisions to really understand their disposition towards risk-taking. Shitolé says sometimes it was tough

evaluating her students' progress. Only articulate children were able to tell her what they thought. For those that remained silent, she had no insight into what they were feeling. Hill's technique, which she first began experimenting with at 4.0 in fall 2018, was actually simple. She would ask founders to clearly define the improvements in students', teachers' or families' learning that they expected to see at the end of their project's pilot period, which could be a matter of hours, days, weeks or months.

After this, she would brainstorm with the founder, suggesting different rigorous assessment methodologies - including surveys and observations.

“There is a narrative about what good education research entails and it demands that ideas get to a certain scale before even participating or that they acquiesce to the rigors of randomized experiments - the “gold standard” of research. When I work with entrepreneurs, I tell them: Don't go for gold; be aluminum — practical, flexible, and accessible. It's modest. And, it gets the job done.”

- Kirsten Lee Hill

She made use of the academic research skills she had acquired while studying for her doctorate at the University of Pennsylvania to create a collaborative, inquiry-based process for entrepreneurs to measure and evaluate the success of their short-term experiments that was derived from rigorous academic methodologies. She coached founders on the idea of "right-sizing" research, supporting them in incorporating rigorous processes while ensuring they stayed true to their original vision for their communities.

“ [Hill's approach] lends credibility to entrepreneurs who are forming a 'new niche market' for which tools for measuring efficacy are rarely available.”

-Alpana Shitolé
Entrepreneur

In Frolific's case, this meant helping Shitolé, who had joined 4.0 four years earlier, to develop surveys for children to take privately before and after each eight-week program.

The surveys included various questions, such as: "Any event with an unknown outcome makes me anxious because I expect/imagine the worst." Students then could choose among five responses, such as: "Is that like you?" or

is that not very like you?" Based on these surveys, Shitolé said she was able to measure improvements in the student's behaviors over time and show their parents, her customers, the efficacy of her program with a meaningful growth chart.

Why this matters

Hill's approach to measurement and evaluation makes complex processes accessible and meaningful to entrepreneurs. Perhaps most importantly, new ideas to improve schooling can be assessed more strategically and objectively with a small amount of money in a matter of several weeks to see if they work or not. This reduces the traditional costly budgets and lengthy time frames involved with typical education research in schools and communities.

"The duration is short. The sample sizes are limited. The investment is small. The goal is to learn whether or not an idea shows promise and is worth pursuing at this early stage," Hill says. "This is all done at a lower risk before investments of tens or hundreds of thousands of dollars are lost."

4.0's CEO Hassan says the new M&E Collaborative aims to accelerate both the pace of learning and investment in



education innovators. 4.0, which has made over 1,000 investments in top founders in the field of education, thinks it is an urgent task to empower communities with access to research. Doing so builds credibility for grassroots ideas to improve education and affords communities the opportunity to shape the narrative about how success is defined.

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“We envision a world where leaders in every community have the resources and support they need to build a brighter future of school.

Research allows us to invest rigorously toward that vision.”

-Hassan Hassan
CEO, 4.0

Hill looks forward to building on the success of the M&E Collaborative as she works to launch a community-led institutional review board to further increase access to credible research.