Center for Universal Education at BROOKINGS

On Friday, January 27th, the Center for Universal Education (CUE) hosted a seminar highlighting lessons from research on what works in education. In addition to hearing from researchers studying the effectiveness of various education strategies, participants had the chance to discuss how to facilitate a future research agenda that could have the most meaningful impact on learning.

CUE Director Rebecca Winthrop welcomed participants, noting the relevance of this topic to CUE's involvement in the Global Compact on Learning, the Research Task Force, and the Learning Metrics Task Force. Next, Senior Fellow Jacques van der Gaag provided an introduction for the seminar, outlining the motivation for the event: If we are shifting the global education paradigm to learning, what should we be doing differently? After introducing this central question, van der Gaag noted the importance of thinking about learning beyond school contexts. He mentioned the correlation between parents' education and student language performance as an indicator of a socio-cultural gradient to learning. However, despite the presence of such family effects, he pointed out the potential for interventions, such as early childhood development programs, to mitigate such disadvantages.

Next, Paul Glewwe, Professor of Economics at University of Minnesota, presented findings from his recent paper, School Resources and Educational Outcomes in Developing Countries: A Review of Literature from 1990-2010.[1] This meta-study analyzes the education and economics literature, with the aim to identify what works in learning. Starting with over 9,000 papers, identified through two major education and economics databases, the authors

[1] The paper is co-authored by Eric Hanushek, Sara Humpage and Renato Ravina

successively eliminated studies based on their relevance to the following categories: school infrastructure and pedagogical materials, teacher and principal characteristics, and school organization. After taking into account the study content and their methodological rigor, 79 papers were finally included in the meta-analysis, of which 43 were considered high quality. Among the 43 high quality papers, 13 were randomized control trials (RCTs). Educational inputs and strategies were thus examined for their impact on learning within these categories of study quality. For example, while textbooks were found to have a strongly positive impact on learning within the larger grouping of 79 studies, there was successively weaker evidence within the higher quality papers. On the other hand, tutoring programs, which were found to have an ambiguous effect in the 79 studies, were identified as having a positive impact on learning outcomes in the higher quality studies and RCTs. One of this study's major conclusions was that despite the body of research available, we still know relatively little about what works in learning. Charles Kenny, Senior Fellow at the Center for Global Development, acted as a discussant for this paper presentation. He noted the high context dependency of RCTs conducted in education, as well as important areas for consideration not addressed in the paper. For example, Kenny emphasized the need to explore the cost-effectiveness of interventions. He provided the example of same language subtitling on television programs, which can improve literacy outside of a school context at a remarkably low cost. This example demonstrates that cost-effective solutions do exist, with some being outside of a traditionally defined learning environment.

Next, Michael Kremer, Professor of Economics at Harvard University, presented findings of his paper Improving Education in the Developing World: What Have We Learned From Randomized Evaluations.[2] (This paper provides results from RCTs on the impact of a variety of

[2] Co-authored with Alaka Holla

school-based interventions on enrollment and learning. For example, reducing family costs for attending school as well as implementing school health programs, such as de-worming, are identified as effective measures for improving school enrollment. In the case of learning, however, there seems to be less conclusive evidence. For example, RCTs have not been able to confirm that the reduction of the Pupil Teacher Ratio and the provision of textbooks have a measurable impact on learning outcomes. Kremer noted that the inability of randomized trials to detect a positive impact on learning with the introduction of various educational inputs could be attributed to distortions in the system, particularly related to its elite orientation. For example, elites, who include civil service teachers and middle class parents, might be resistant to changes that challenge the benefits that they receive, whether it is job security or attention for their children at the expense of those more disadvantaged. Given such distortions in the system, evidence from RCTs suggests that remedial education, tracking, and technology assisted learning could be "low-hanging fruit," which could be implemented without resistance from elites, with a positive impact on learning While this paper and the dialogue around the learning crisis might downplay the successes achieved in education, Kremer highlighted the fact that even a little bit of education can have an impact on wages and can also lead to a greater sense of empowerment. Afterward, Mwangi Kimenyi, Director of the Africa Growth Initiative at the Brookings Institution, acted as a discussant for the paper. Kimenyi noted the challenges inherent in education reform given the political context, providing the example of contract teachers in Kenya. While some evidence demonstrates their effectiveness for impacting learning, the hiring of contract teachers has led to dissatisfaction among civil service teachers.

World Bank Director of Education in the Human Development Network, Elizabeth King, presented on the Bank's Learning Strategy which includes specific initiatives for systems

assessment and benchmarking. By facilitating systems-level assessment that explores a wide range of educational factors to eschew grading performance by one variable, this strategy encourages reflective reform in host countries. King also discussed the World Bank's robust involvement in RCTs in education. In response, Nicholas Burnett from Results for Development Institute raised important questions about a systems based strategy. In particular, he posed the question -- are all aspects of the system equally important? Additionally, he emphasized a need to pay attention to the sequencing of reforms within the education system, while also thinking of actors, such as school inspectors and parents, who might be traditionally excluded from a learning strategy.

The second half of the meeting began with a panel discussion focused on the policy implications of the research findings. Moderated by Homi Kharas, Deputy Director of Brookings Global Economy and Development, the panelists addressed several themes brought up throughout the morning's conversations, but focused specifically on the objectives of research in education, and future research questions and how to approach them. Panelists first acknowledged the difficulty in identifying research objectives given the variation that different disciplines have in defining the component parts of learning. In terms of objectives, it was suggested that given an increasingly globalized environment, it is necessary to understand whether students are learning what they need to know for the 21st century. Additionally, attention was given to the question, who are we trying to influence with the results of evaluations? Some argued that host country governments where policy is under exploration is where influence is ideally leveraged, while others acknowledged the important role that evaluations have in formulating donor priorities.

With respect to a future research agenda, Penelope Bender, USAID Senior Education Advisor, suggested focusing on questions and answers previously unaddressed in effectiveness studies. For example, she identified pedagogy as one such important yet understudied area. Overall, participants acknowledged the need to conduct further research into effectiveness of learning interventions, with a particular eye on low-cost strategies, which if found to work, could be implemented quickly. The discussion also addressed a concern for research that seeks to understand how to scale up programs, which currently provides a major challenge for research translation.

Mary Joy Pigozzi of FHI 360 noted the importance of different approaches, particularly qualitative ones such as thoughtful process evaluations that can help refine policy. Additionally, since RCTs are primarily pursued for new projects, evaluations seemingly test the quality of implementation rather than that of the intervention. These points underscore a need to diversify evaluation methodology and assessment timing. Furthermore, with regard to research approach, panelists identified a need to better involve host countries, particularly in light of challenges that arise when translating results into practice.

Daniel Wagner from the University of Pennsylvania summed up some future research priorities, by arguing the need for assessments to be "smaller, quicker, and cheaper." He explained that smaller sample sizes could enable a focus on the most marginalized, greater timeliness could ensure long-term relevance of research, and cheaper studies could allow for more research, given the costliness of RCTs in particular. Finally, he stressed the importance of making research user-friendly, in order to obtain the most impact.

After the event, participants indicated that there had been insufficient time for further discussion. Moreover, there were some concerns that the presentations of the literature surveys were too focused on the economic literature, with too little attention to what educators have to contribute to the dialogue. Therefore, CUE would like to continue the conversation about what it takes to improve learning outcomes online. We encourage everyone who participated in the seminar to contribute, and would appreciate it if you could invite others to do the same. Hopefully, over time, we will be able to generate a more complete picture of what facilitates learning at the school level in the context of developing countries.