

Research Statement

Adrien Bouguen

My research mainly focuses on applied economics, and specifically education, in developed and developing countries. I am particularly interested in human capital accumulation in early ages. Evidence from different fields of research - neuroscience, biology, psychology - now confirms that human brains acquire cognitive competences and socioemotional skills at a much faster pace early on. Consequently, cognitive inequality increases at young ages, tends to stabilize around six years old and is usually never reduced during adulthood. This constitutes a form of inequality that fundamentally structures our society and which are unlikely to be compensated by simple redistributive policies.

Early interventions - which can take the form of health interventions, nutrition supplementation programs, early cognitive stimulation or more or less formalized forms of preschool/kindergarten - are considered as important policy tools to both improve the accumulation of human capital and reduce the cognitive gap. Understanding how these early policies function, how they may impact cognitive development and reduce cognitive inequality, is my main research agenda.

I started working on Early Childcare Education in a developed country (France) during my PhD. There, I studied ways to modify kindergarten teachers' practices in order to increase the performance of children. I published a first article on this topic using a large non-randomized experiment in France. The result of this first study was published in the *Economics of Education Review*.¹ I found that a very intensive training that helps kindergarten teachers to adjust the content of education to children's performance is instrumental in improving early reading skills.

I pursued my interest for Early Childcare with a first preschool construction experiment conducted in Cambodia from 2006 to 2008. Despite the important resources devoted to the program, we could not detect any positive impact of preschool. Important implementation difficulties and a sub-optimal enrollment behavior of parents were identified as likely reasons for these disappointing results. The results of this first experiment was published in the *Journal of Human Resources* in 2018.²

¹*Adjusting content to individual student needs: Further evidence from an in-service teacher training program*, *Economics of Education Review*, Volume 50, February 2016, Pages 90-112

²*Preschool and Parental Response in a Second Best World: Evidence from a School*

After this first experience, the World Bank invited me to design a new protocol to evaluate a new version of the preschool program. In this new study, in addition to relying on a much larger sample size and a much better implemented construction strategy, we requested that the construction program would be complemented by demand-side interventions. The construction intervention is the topic of my Job Market Paper, *Heterogeneous Treatment effect and Close Substitute: Evidence from a construction program in Cambodia* with Jan Berkes, while a second paper with Jan Berkes and Deon Filmer, will specifically study the demand-side interventions.

This project has also given rise to two additional research contributions, one with Jan Berkes, Deon Filmer and Abbie Raikes on parental competences and children performance³ and the other on teachers' performance and children cognition using video and class observation. A fifth piece of research is already envisioned looking at the mid-term effect of preschool when all preschool children will be registered in preschool. This last piece will rely on a survey plan to be conducted in June 2020 for a publication in 2021 or 2022. In all this study, will generate five working papers, two of them are already available three additional will be completed in the coming years.

In addition to these five upcoming pieces of research, I am involved in two additional research project in education in France, one on teacher training skills in French primary school with my former PhD supervisor Marc Gurgand (PSE) and one on socioemotional skills with Yann Algan (Sciences Po), Elise Huillery (Université Dauphine), and Coralie Chevalier (ENS). Both projects will be completed in 2019 and will give rise to publications in 2020.

Outside of the field of Education, I am involved in two additional projects in development economics in partnership with Innovation for Poverty Action in Burkina Faso. One project is about the introduction of Labor intensive agricultural techniques in Burkina Faso, the other is a poverty alleviation study where a variant of the Ultra Poor multifaceted program is tested. Both projects are planned to be completed by 2021 with publications expected in 2022.

Finally, as part of my post-doc program at UC Berkeley, I recently received confirmation that my article entitled *Using RCT's to Estimate Long-Run Impacts in Development Economics* and co-authored with Luna Huang (UCB), Edward Miguel (UCB) and Michael Kremer (Harvard) will be published in the Annual Review of Economics in 2019. This article identifies the most promising cash transfer and child health experiments that could

Construction Experiment, Journal of Human Resources, Adrien Bouguen, Deon Filmer, Karen Macours, and Sophie Naudeau March 31, 2018 53:474-512

³*Joint Effects of Parenting and Nutrition Status on Child Development Evidence from Rural Cambodia*, Jan Berkes Abbie Raikes Adrien Bouguen, Deon Filmer, Policy Research Working Paper 8529, The World Bank

benefit from a long-term follow-up. As part of my post-doc, we have already contacted several PI of the original studies and I am coordinating the roll-out of these long-term survey. Thanks to this traversal project, in the coming years, we should be in the capacity to look in systematic manners at the long-term impact of development programs. Together with my colleagues from Berkeley (Edward Miguel) and UC San Diego (Craig McIntosh and Prashant Bharadwaj), I would like to position myself as one of main researcher in the long-term effect of development programs.

In conclusion, I am currently supervising as a Principal Investigator six exciting research projects:

- Three in education: one in Cambodia and two in France;
- Two in development economics: one in agriculture;⁴, one Ultra poor intervention⁵
- One about the long term effect of child health and cash transfer.

These projects will generate around ten publications in the coming 5 years, enough to establish myself as a prolific researcher in development and education economics. As these six projects finishes and get published, I wish I could use that tremendous experience to design a new generation of empirical studies entirely devoted to isolate more externally valid and structural parameters. I am therefore looking for an institution which would value and foster my empirical work while offering collaborations to strengthen the structural dimension of my research agenda.

⁴with Markus Frölich, Estelle Koussoubé and Eugenie Maiga

⁵with Andrew Dillon