Request for Proposals
Case Studies of Exceptional Education Progress in the Developing World

Background

The Center for Global Development (CGD) has initiated a research project under its research consortium with the Bill and Melinda Gates Foundation to learn from the historical experience of countries which have posted exceptional gains in student learning levels at the primary level, and to gain insights about the underlying drivers of educational progress. The envisioned output is a series of case studies on pairs or groupings of countries with diverging education performance, drawing on desk-based research and interviews with relevant experts to produce a study or studies suitable for publication in the CGD working paper series.

CGD has identified a small set of education systems in low- and middle-income countries which have distinguished themselves over the past 30 to 50 years relative to their neighbors at similar levels of initial educational development. This was done starting from the analysis detailed in a recent CGD publication, "The Long-Run Decline of Education Quality in the Developing World" (Le Nestour et al 2022), which measures country-specific trends in quality for cohorts born between 1950 and 2000 in eighty-seven countries. While the overall picture there is grim, there are limited exceptions. Those exceptions, which are referred to here as "exemplar" countries, are those which saw significant improvements in access and quality over time (or, at a minimum, improvements in access and non-deterioration in quality).

Summary of consultancy work

The CGD Education Program seeks consultants with experience in education to deliver one (or more) of the following three case studies. For each case, countries were selected which (a) showed either steady or improved learning levels per year of schooling, and (b) significant expansions in access. Comparator countries were selected who showed similar levels of both access and learning (conditional on schooling) in the starting cohorts, i.e., women born in the 1950s.

The three separate sets of comparative case studies will be drawn from the following list. Each set of these studies would likely be conducted by separate teams with regional expertise.

Study A: Eastern and Southern Africa

- Potential exemplars: Burundi and Rwanda
- Potential comparators: Ethiopia, Uganda, Malawi, and Mozambique

Study B: South Asia

- Potential exemplars: Pakistan (possibly in tandem with Nepal and Bangladesh)
- Potential comparators: India (possibly in tandem with Nepal and Bangladesh)

Study C: Southeast Asia

- Potential exemplars: Indonesia and Vietnam
- Potential comparators: Thailand and Cambodia

Please see the annex below for details on the country selection, and the rationale for each grouping. In terms of process and substance, each of the three studies should incorporate the following elements.

1. Validating exemplar cases

Some validation of the basic outcome trends here is required to increase confidence in the analysis. The trends in education quality reported by Le Nestour et al (2022) are notable mostly for their comparability across countries and long periods of time. But they provide a very narrow measure of quality in any one country, and in some cases may be fragile to measurement errors in the DHS or MICS data. Before we start to build a narrative around high- or low-performing countries in these data, we should be sure to validate the general pattern with independent data sources. In a few countries this could include international assessments like PIRLS or TIMSS which will report trends over a shorter time period. Some countries will have time series from national assessments. In other cases we might have to look for more anecdotal corroboration.

2. Formulating hypotheses about drivers of learning improvements

The second step is to begin to explain the factors that led to this success, through comparative case studies of two or three clusters of countries. This is the core contribution envisioned for these case studies. It will hinge on careful selection of the exemplar and comparator countries, as well as formulation of plausible hypotheses to explain diverging education trajectories.

Possible explanatory factors to explain in the analysis include

- Language policy
- Teacher policy (salary, qualifications, pre-service training)
- Pedagogical practice
- Governance (local autonomy and decentralization, role of the private sector)
- Other factors to be identified by the consultant

The consultants should review the relevant literature in comparative education to expand this list, or prioritize within it.

Many of these factors are not easily measurable with data sources off the shelf. (If cross-country data sets with comparable indicators for all these measures existed, it might be possible to conduct this investigation using 'large N', quantitative analysis.) Instead, we anticipate the consultant will have to do some digging through policy reports and government publications to assemble rough proxies for these concepts in each country.

3. Finalizing the list of exemplars and comparator cases

CGD is open to two alternative bases for case selection. These two approaches are described in section 4.4.1 and 4.4.2, respectively, of the classic methodological treatise by King, Keohane, and Verba (1994).

I. *Selecting observations on the explanatory variable*. In an ideal scenario, the study would select pairs (or larger numbers) of countries that differ on the key explanatory variables identified during the formulation of hypotheses. For instance, if mother-tongue instruction or other aspects of language policy are deemed to be likely drivers of change in education quality, cases could be selected with markedly divergent language policies dating at least some decades back. The difficulty in our context is that the number of successful outcomes is limited (i.e., the number of countries posting positive gains in education quality over long time periods), so selection of cases this way may be unlikely to land on any exemplar countries.
II. *Selecting a range of values of the dependent variable*. This approach is clearly sub-optimal in terms of causal inference. But it holds practical advantages in our context, i.e., the ability to start from a small number of exemplar countries, and match them to reasonably similar comparator countries (at 'time zero'). An important caution stressed by King et al, however, is that "if this design is to lead to meaningful— albeit necessarily limited—causal inferences, it is crucial to select observations without regard to values of the explanatory variables. We must not search for those observations that fit (or do not fit) our a priori theory."

The selection of cases suggested in the annex to this TOR essentially embraces approach II, but we would be open to suggestions along the line of approach I if deemed feasible.

4. Comparative case-study analysis

After approval of the final list of hypotheses and country groupings, the consultant would proceed to the main analytical work. We envision that this would consist of collection of secondary data related to each of the hypotheses, and potentially interviews with relevant education experts in both the exemplar and comparator countries.

CGD will require the consultants working on all three regional studies to participate in workshops to coordinate, as much as is practical and helpful for each individual study, on hypotheses and methods.

The final product should make a significant contribution to global understanding of the drivers of education progress. The consultant should aim for a paper that would be publishable in a reputable, peer reviewed academic journal, either in education or development studies (though journal publication is not part of this TOR per se). The goal here is to commission a good faith effort to gain new insight, rather than to conduct advocacy for any one set of explanations. The analysis should carefully weigh alternative explanations for observed performance, acknowledge contradictory data, and position the conclusions relative to the existing literature.

Milestones

We anticipate that the consultants will work in fairly close consultation with the CGD education team, particularly during the development of hypotheses and final selection of cases. As such, we anticipate deliverables at two separate stages, with work commencing in November 2022.

Early December 2022	**D1:** Presentation of final list of candidate hypotheses and country pairs. The process of selecting candidate country pairs and hypotheses should be fully documented and justified, and we anticipate that this justification would comprise a crucial element of the eventual study. Once the consultant and CGD agree on both these pieces, the primary analysis could begin.
April 2023	**D2:** Submission of draft paper for review. After submission of the draft paper, CGD may request additional analysis or suggest revisions prior to publication in the CGD working paper series. The consultant would retain ownership of the intellectual property and freedom to pursue journal publication elsewhere.
May 2023	**D3:** Final submission of revised paper and a Power Point deck summarizing findings from the paper. Once again, the anticipation is that the final product would be suitable for publication in the CGD working paper series.

Timeframe

The consultancy, which covers one set of comparative case studies, is for a period of 6 months (max 45 working days) with an anticipated start date in November 2022.

Location

Submissions will be considered from all who apply regardless of home location.

Fees

CGD invites consultants to propose their fees in their expression of interest. Fees should be all inclusive.

Insurance

The consultant shall take out and maintain at all times during the term of the Contract and at their own cost appropriate insurance coverage, which coverage shall include such insurances as may be required by the law of the country of incorporation of the Contractor and/or the laws of the country in which the Services are to be performed.

The required qualifications

- A postgraduate degree in education, education research economics, or related field (PhD preferred)
- Significant experience in education research and policy, with experience gained in one or more developing countries. Bidders from one of the case study countries preferred.
- Excellent written and spoken communication skills and strong analytical and technical skills.
- Ability to work effectively remotely.
- Proven ability to advance research projects independently while being accountable for the accuracy of outputs.

Submission of proposal

Please submit your proposal including your curriculum vitae, one example of education research you have authored, and proposed consultancy fees at https://forms.gle/zVSNy6n2UYSwwpkx7 by 11.59pm GMT on November 8, 2022. Proposals will be reviewed on a rolling basis.

For any questions about technical aspects of this request for proposal please email jsandefur@cgdev.org. For all other inquiries, please email akhan@cgdev.org. Please note submissions will **not** be accepted at either email address.

Annex: Finding case studies for the exemplar work in Le Nestour et al (2022).

Goal: Finding pair or group of countries that had similar characteristics in terms of school quality, school access and economic level but diverged in terms of progress of school quality.

Data: Exemplar final_results dataset.

Method:

1- *Ensure high data quality to make sure that observed progress is real:*

a. Only data from the woman sample are considered as there are more surveys with larger sample sizes and fewer potential biases (some men are excluded from DHS/MICS surveys if they don't live in a household with a 15–49-year-old woman).

b. Only keep countries with at least 3 surveys. The Age-Cohort-Period method we're using requires at least three surveys. It is hard to assess how biased results could be for cases with one or two surveys available.

c. Create an indicator of survey effect (see appendix with graph for Belize and Togo): the standard deviation of survey effects. It is hard to explain large survey effects and they may indicate something wrong with the underlying data.

d. Create an indicator of age effects: absolute relative change in literacy at grade 5 between age 20 and 40. Countries with very large age effects could indicate something wrong with the underlying data.

e. Create an index of data quality that includes standard errors of literacy at grade 5 for the first and last cohort, number of surveys (or rather its inverse to be consistent with other indicators), standard error of survey effects and relative age effects.

The index has been created with the min-max method. A smaller index value indicates better data quality, that is countries where literacy at grade 5 is estimated with less error, based on more surveys that tend to agree together and with no large age effects.

The final dataset includes 49 countries: 32 in Africa (Egypt is put in the Africa region), 11 in Asia (South and East Asia are put together. Iraq is put in Asia and Serbia as well) and 6 in Latin America.

2- *Compare progress over time in terms of school quality (literacy at grade 5) and schooling (percentage reaching grade 5).*

a. The first cohort (born in 1960 to 1969) is compared to the last cohort (born after 1990). There are some data for women born in the 1950's but they are not available for all countries and less reliable. For the youngest cohort, data are usually available up to 1998 (90% available up to 1994 or more). As women were around 10 when they went to school, we're comparing school systems of the 1970's to the school systems of the early 2000's.

b. Literacy at grade 5 and share reaching grade 5 are averaged for these two cohorts. The average is weighted by the square root of the sample size of the cohort to give more weight to data points with a lower standard error.

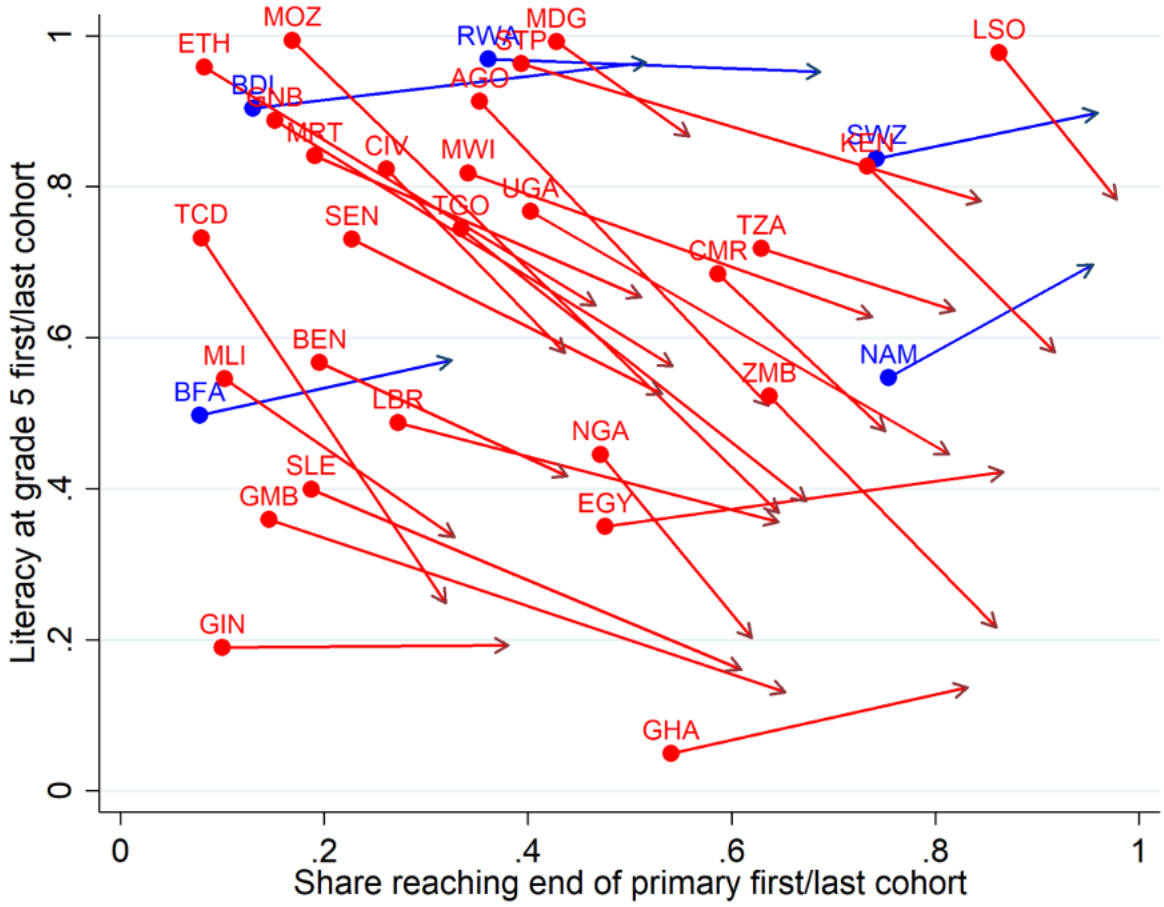
3- Define exemplar countries as countries that maintained or increased their literacy at grade 5 between first and last cohort and had a decent literacy at grade 5 for the youngest cohort (>.5).

4- Visually compare exemplar countries in each world region to countries that had similar characteristics in terms of school quality and schooling for the older cohort to choose the best comparator.

5- Check other important characteristics such as level of development and data quality to assess what the best potential case studies are.

Results:

Africa



There are six exemplar countries (Burundi, Rwanda, Eswatini, Burkina Faso and Namibia). Countries such as Egypt, Ghana, Gambia or Guinea slightly improved their school quality but remain too weak to be considered as exemplar.

Burundi:

There are four possible controls: Ethiopia, Mozambique, Guinea-Bissau and Mauritania.

country	lit51	lit52	share51	share52	gdppc1	gdppc2	data_quality
Burundi	.904	.965	.13	.516	852.091	689.428	.283
Ethiopia	.959	.643	.083	.466	817.775	744.91	.313
Mauritania	.841	.654	.191	.511	2515.105	2477.105	.365
Mozambique	.994	.368	.169	.646	461.205	644.107	.366

**lit51: literacy at grade 5 for older cohort, lit52: literacy at grade 5 for younger cohort, share51: share of older cohort reaching grade 5, share51: share of younger cohort reaching grade 5, gdppc1(2): gdp per capita in real 2011 dollar (Maddison & Lee) when the cohort 1 (2) was 10 year old.*

For Burundi, Ethiopia and Mozambique seem to be the best comparator. They had very similar level of schooling and schooling quality in the 1970's and similar levels of development for the whole period.

Rwanda:

country	lit51	lit52	share51	share52	gdppc1	gdppc2	data_quality
Angola	.913	.51	.353	.636	4833.826	4180.763	.482
Madagascar	.992	.867	.428	.558	2258.919	1381.07	.162
Malawi	.818	.627	.341	.737	841.58	888.949	.104
Rwanda	.969	.952	.361	.687	801.12	925.636	.088
Sao Tome and Principe	.963	.781	.393	.845	2865.943	2577.554	.459
Uganda	.767	.446	.402	.813	1196.288	1365.436	.24

For Rwanda, Angola and Sao Tome and Principe are close in terms of initial schooling conditions but much richer and data quality is not very good in these two countries. Madagascar could be a good comparator but the decrease in school quality was relatively modest. Uganda and Malawi started from a lower level of school quality but they are close in terms of school access geographically and in terms of income with good data quality.

Eswatini:

country	lit51	lit52	share51	share52	gdppc1	gdppc2	data_quality
Eswatini	.837	.898	.742	.959	3887.136	6208.847	.418
Kenya	.827	.581	.733	.917	2251.606	2324.365	.405
Lesotho	.977	.784	.862	.978	870.131	1617.333	.407

Eswatini looked very similar to Kenya in terms of schooling and income in the 1970's but experienced a much stronger growth afterwards. Lesotho could also be a good comparator as it is very close geographically, but it is poorer and school quality remains high there. Data quality is not great in these three countries.

Namibia:

country	lit51	lit52	share51	share52	gdppc1	gdppc2	data_quality
Cameroon	.684	.477	.586	.751	2328.901	2419.296	.319
Namibia	.547	.696	.754	.954	6350.617	6087.531	.558
Tanzania	.718	.636	.629	.819	1669.688	1715.964	.348
Zambia	.522	.217	.637	.859	3092.954	2270.347	.308

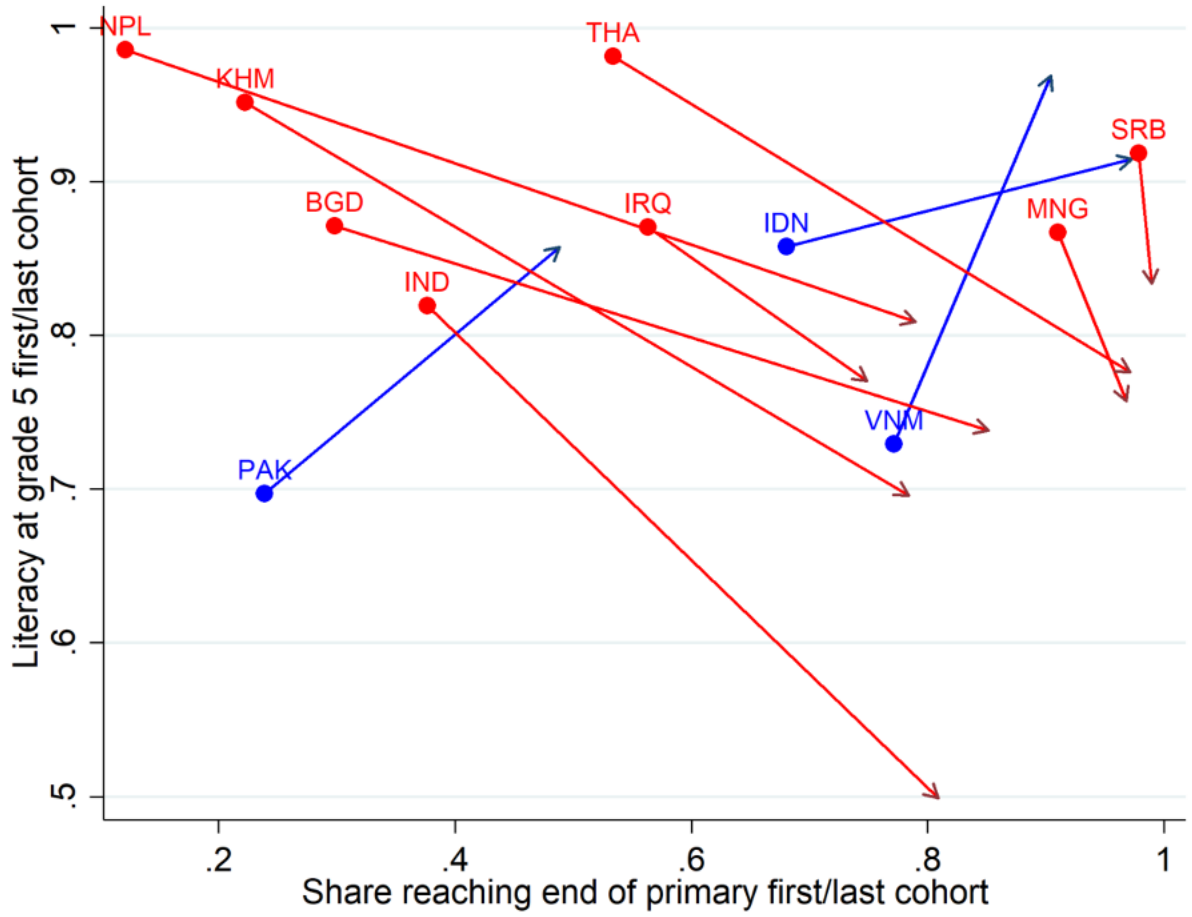
The best comparator to Namibia is probably Zambia, although it's much poorer. But data quality in Namibia is very poor and that may cast doubt on the fact that Namibia is a real exemplar country.

Burkina Faso:

country	lit51	lit52	share51	share52	gdppc1	gdppc2	data_quality
Benin	.567	.417	.195	.438	1297.133	1772.317	.375
Burkina Faso	.497	.57	.078	.325	755.425	1094.345	.483
Chad	.732	.249	.08	.319	992.04	972.521	.756
Gambia, The	.359	.131	.146	.653	1661.237	1600.977	.409
Liberia	.487	.356	.272	.646	1430.301	608.223	.606
Mali	.546	.336	.102	.327	871.013	1251.472	.397
Sierra Leone	.399	.161	.187	.609	1559.5	1145.993	.422

All potential comparators for Burkina Faso are located in West Africa and have similar levels of development and growth. Neighbouring and French speaking Mali and Benin seem to be the best comparators. Chad and Liberia have very bad data quality and Gambia has slightly different conditions. But school quality in Burkina Faso remains very low and data quality is quite poor.

Asia



Pakistan:

country	lit51	lit52	share51	share52	gdppc1	gdppc2	data_quality
Bangladesh	.871	.738	.298	.851	1131.283	2017.033	.242
Cambodia	.951	.696	.222	.784	674.102	1444.981	.283
India	.819	.499	.376	.809	1195.805	2806.49	.322
Nepal	.986	.809	.121	.789	1029.74	1777.984	.175
Pakistan	.697	.857	.239	.488	1953.182	3800.661	.531

The closest comparator for Pakistan is probably India. But data quality is poor for Pakistan and it's hard to be sure it's a true exemplar country. However, one alternative could be to compare India to Bangladesh and Nepal. Quality has decreased in Bangladesh and Nepal but much less than in India and these three countries are close geographically and culturally. Additional information should be gathered for Pakistan if possible to assess if it's a true exemplar country and the case study could compare the different progress of these four neighbouring countries with Pakistan as the best example of quality but with a small expansion in access, Bangladesh and Nepal as examples of relatively small decrease in quality despite a large expansion and India as the country having failed to maintain quality.

Indonesia:

country	lit51	lit52	share51	share52	gdppc1	gdppc2	data_quality
India	.819	.499	.376	.809	1195.805	2806.49	.322
Indonesia	.858	.915	.681	.972	2678.09	6287.05	.264
Iraq	.87	.77	.563	.749	32533.85	9018.074	.333
Mongolia	.867	.757	.91	.968	3799.786	5876.973	.341
Thailand	.981	.776	.534	.971	2876.34	10628.72	.271

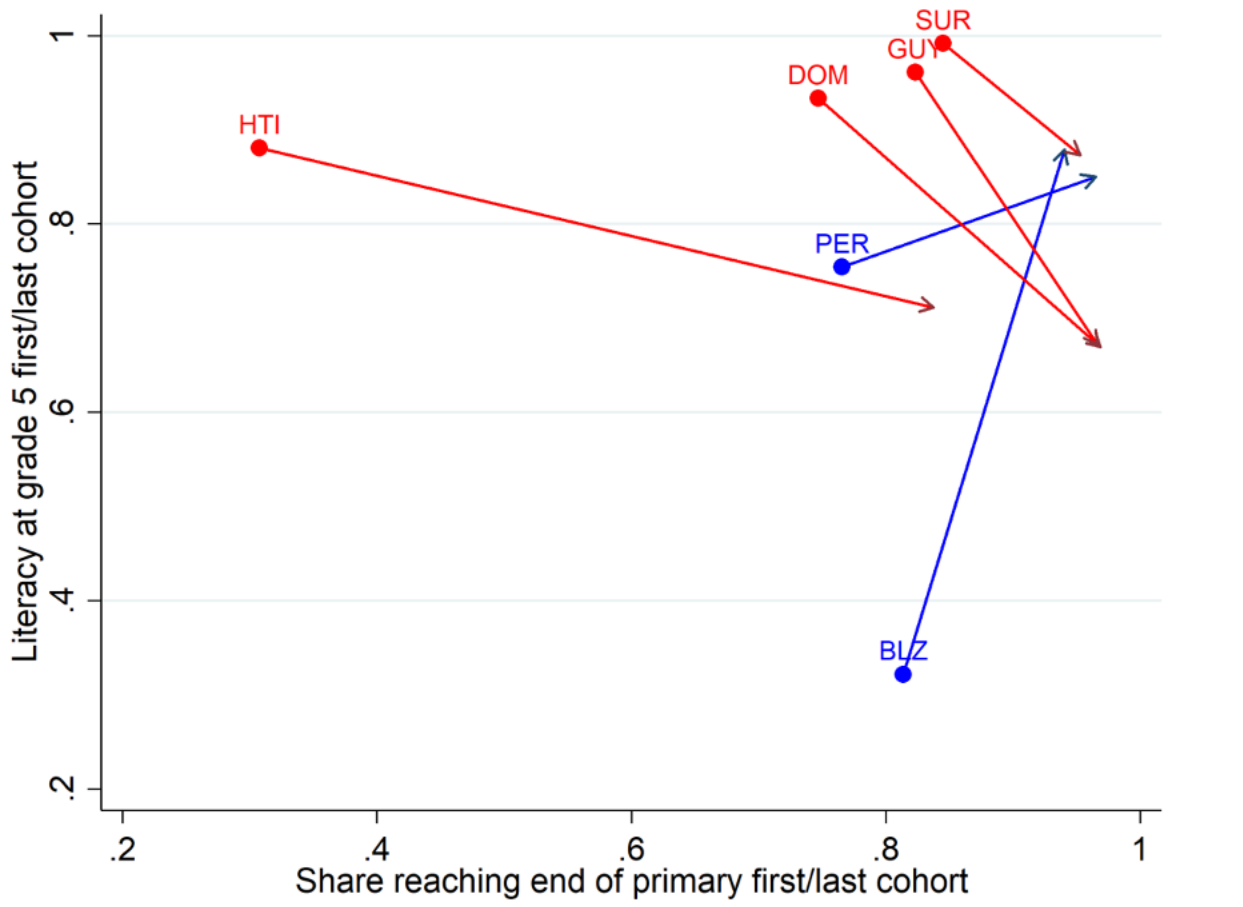
Indonesia is good exemplar country having experienced a large school expansion and having managed to increase its already relatively high school quality. But it's hard to find a good comparator country. Iraq is relatively similar in terms of schooling conditions but very far away and with a very different level of economic development. Mongolia is a very different country with no large school expansion during this period. Thailand is potentially the best potential comparator but school quality for the younger cohort remains high there. So, maybe India could be used as a comparison even if it's poorer and started from worse schooling conditions. They are both very large countries with a federal structure and have experienced a large school expansion.

Vietnam:

country	lit51	lit52	share51	share52	gdppc1	gdppc2	data_quality
Cambodia	.951	.696	.222	.784	674.102	1444.981	.283
Thailand	.981	.776	.534	.971	2876.34	10628.72	.271
Vietnam	.729	.969	.772	.904	1160.507	2954.275	.493

Data quality is not great for Vietnam but with other sources of evidence we can be quite confident it has a high level of school quality, although maybe our trend is not estimated correctly. If we believe Vietnam's trend, this is interesting to note that they were not very good in the 1970's in terms of quality compared to Thailand or Cambodia but had a very high access already. This makes it very hard to find a good comparator for Vietnam: they are much poorer than Thailand but had historically higher schooling access. A careful comparison between these three countries could be interesting but I feel a lot has already been written on Vietnam success story.

Latin America



Peru:

country	lit51	lit52	share51	share52	gdppc1	gdppc2	data_quality
Dominican Republic	.933	.67	.747	.969	4782.324	8411.865	.315
Guyana	.961	.672	.823	.966	.	.	.493
Peru	.754	.85	.766	.965	6898.984	6256.487	.248
Suriname	.992	.874	.845	.953	.	.	.394

It is hard to find a comparator for Peru. The Dominican Republic is probably the best one available in Latin America but they didn't start from the same conditions in terms of schooling quality.

Belize:

country	lit51	lit52	share51	share52	gdppc1	gdppc2	data_quality
Belize	.322	.879	.814	.941	.	.	.639
Dominican Republic	.933	.67	.747	.969	4782.324	8411.865	.315
Guyana	.961	.672	.823	.966	.	.	.493
Suriname	.992	.874	.845	.953	.	.	.394

Data quality is very poor in Belize and it is hard to know what's going on there. It's not a good candidate for case study.

Conclusion:

Considering all factors, the most promising case studies are:

- **Rwanda and Burundi**. They have good data quality and relatively close comparators. These two countries could be studied together as they have a lot in common.
- **Pakistan, India, Nepal and Bangladesh**. Data quality is relatively good (more evidence needed to confirm Pakistan) and these four countries can show three different types of progress in terms of schooling expansion and quality.
- **Indonesia.** This could be an interesting case study although it may be hard to find the perfect comparator.
- **Vietnam.** It could be an interesting case study but a lot has been written about it already.
- **Peru.** But the potential comparator is not so great.

Appendix:

Examples of countries with large standard error of survey effects: