What Works Hub for Global Education

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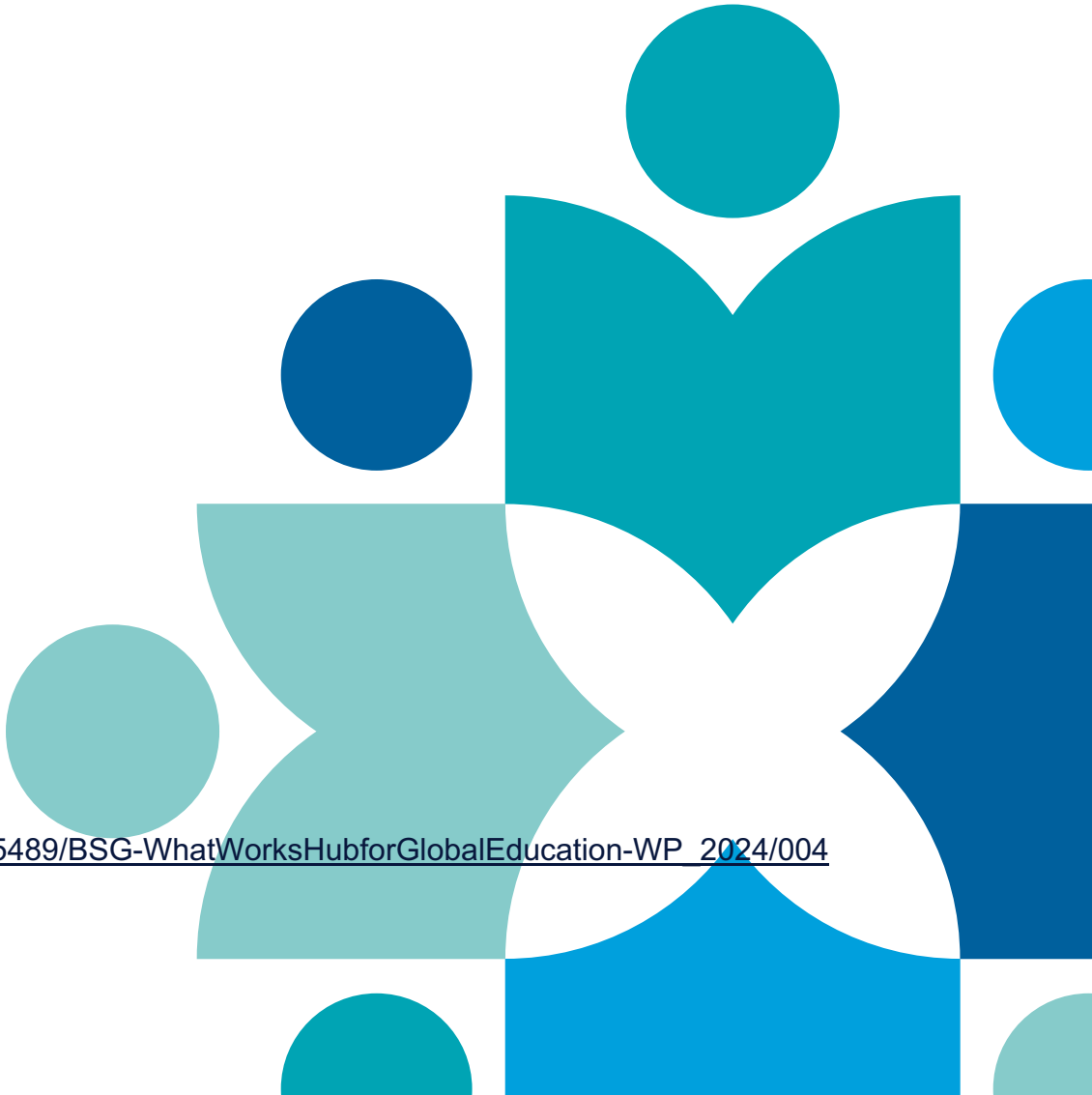
Understanding gaps between policy and practice

Noam Angrist and Stefan Dercon



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Understanding Gaps between Policy and Practice

By Noam Angrist and Stefan Dercon*

Abstract

Substantial effort is invested in improving education policy, yet for policy to matter it must be implemented in practice. This article presents new systematic analysis of the gap between education policy and practice across 50 countries during COVID-19, a time of substantial policy innovation. We find large gaps between policy intent and policy implementation in practice. While "policy-practice gaps" are large in most regions of the world, Latin America is a bright spot, with lessons for other regions. We further examine two components of the policy-practice gap to help better understand it: naïve policy and ineffective service delivery. We find policies are often designed sensibly and are not naïve; rather most of the policy-practice gap can be explained by ineffective service delivery. Our findings highlight the need to prioritize implementation science in education to close the gap between policy and practice. We also examine settings beyond COVID-19, and find similar patterns in the policy-practice gap. Substantial attention among the education community today is dedicated to policymaking, yet minimal attention is paid to policy implementation. Our results motivate as much attention on the latter as the former.

*Angrist: Oxford University, Youth Impact; Dercon: Oxford University. We thank Natasha Ahuja who provided excellent research assistance, as well as Veerangna Kohli. We also thank partners including the Africa Economic Research Consortium (supported through the Bill & Melinda Gates Foundation) as well as the What Works Hub for Global Education (supported by the United Kingdom Foreign Commonwealth and Development Office (FCDO) and the Bill & Melinda Gates Foundation). The authors appreciate detailed comments by Adrienne Lucas, Lant Pritchett, and Halsey Rogers which informed this work, as well as useful conversations with Tahir Andrabi, Luis Benveniste, Claire Cullen, James Habyarimana, Rachel Hinton, Akshay Mangla, Michelle Kaffenberger, Clare Leaver, Nompumelelo Mohohlwane, Moitshepi Matsheng, Rachael Meager, Benjamin Piper, Abhijeet Singh, and Liz Stuart. This piece is an empirical component companion piece to "Mind the Gap between Education Policy and Practice" in Nature Human Behaviour. It provides multiple empirical analyses, including analysis of policy-practice gaps during and prior to covid-19 (e.g. for early childhood development), and also examines various underlying components of policy practice gaps. It also includes detail on data sources.

I Introduction

Governments routinely face new challenges and are forced to confront them with new or adapted policy. For example, as school enrollments increase, how do governments adjust class size and teacher-student ratios? As early childhood centers get built nationwide, how do teachers get trained and deployed to the early grades? As schools' experiences disruptions worldwide during COVID-19, how did governments support remote education delivery? We start by examining the specific case of school disruptions, which provides a useful case study demanding swift and substantial policy innovation worldwide at a similar time, and then later also examine additional policies, such as early childhood development policies.

The COVID-19 crisis provides a prominent experiment to explore the potential of education policy, showcasing how swiftly new policies can be adopted and enacted to address an exacerbated learning crisis. At one point, schools closed for over 1.4 billion children, resulting in significant learning losses (Engzell et al. 2021; Lichand et al. 2022; Patrinos et al. 2022; Moscoviz and Evans 2022). Governments adopted a variety of remote education policies in response. In addition, a series of global datasets emerged to carefully document the extent of policy adoption as well as education services received by households. We review new data from 50 countries to examine the extent of policy adoption as well as when these policies translate into practice. We complement this data with datasets on pre-COVID policies and practice, such as early childhood development, to assess similarity in patterns across settings.

II Study Setting and Data

II.A New data to answer enduring education questions

We explore both policy adoption and policy implementation – that is, education services delivered in practice. When schools closed during COVID-19, were governments able to adapt and enact policies to deliver remote education, for example, providing internet, radio, and TV-based instruction? Once policies were in place, did education services reach households, and did households actively participate? To answer these questions, we use two data sources from dozens of low- and middle-income countries. For policy-level indicators, we rely on surveys of education ministry officials conducted by UNESCO, the World Bank, and UNICEF in over 100 countries. We triangulate this policy data with practice data, using high-frequency household surveys conducted by the World Bank in 70 countries for practice-level indicators. These surveys collect information on a variety of indicators in health, education, agriculture, and other fields. We concentrate on education indicators that quantify the proportion of households that participated in various types of remote learning during school disruptions. We harmonize and combine data from different rounds, surveys, and indicators. This data, while imperfect, represents some of the best harmonized global data available on policies and practices to date.

Over 50 countries are represented by the intersection of these data sources. We compare services

received in practice using household surveys with data from ministries of education on government remote learning policies to quantify a "policy-practice gap."

We supplement the above data with the most recent Demographic Health Surveys (DHS) to determine the percentage of households that have access to remote education delivery modalities such as the internet, radio, television, or mobile phone access. This allows us to develop a more in-depth understanding of the policy-practice gap, decomposing it into two core dimensions: (a) realistic or naïve policy and (b) effective service delivery. Countries that intended to provide radio-based remote instruction and in which many households had access to radio but did not tune in consistently, for example, would have realistic policy and poor service delivery. Countries with limited access to radio, on the other hand, would be considered to have adopted unrealistic or naïve policies. When intersecting the DHS data along with policy and practice data we are able to include 25 countries.

We also use the World Bank's Systems Approach for Better Education Results (SABER) database to see if the patterns observed during COVID-19 held true during non-COVID-19 periods. Data on education policies such as early childhood development and teacher training are included. SABER also collects information on the extent to which households have access to services outlined in government policies. SABER's access data is compiled from a variety of sources, including MICS, UNAIDS, and the UNESCO Institute for Statistics. SABER has previously been used for case-by-case policy tracking; in this article, we extend previous work by systematically analyzing global and regional trends in policy-practice gaps.

III Results

III.A Large gaps between education policy and practice

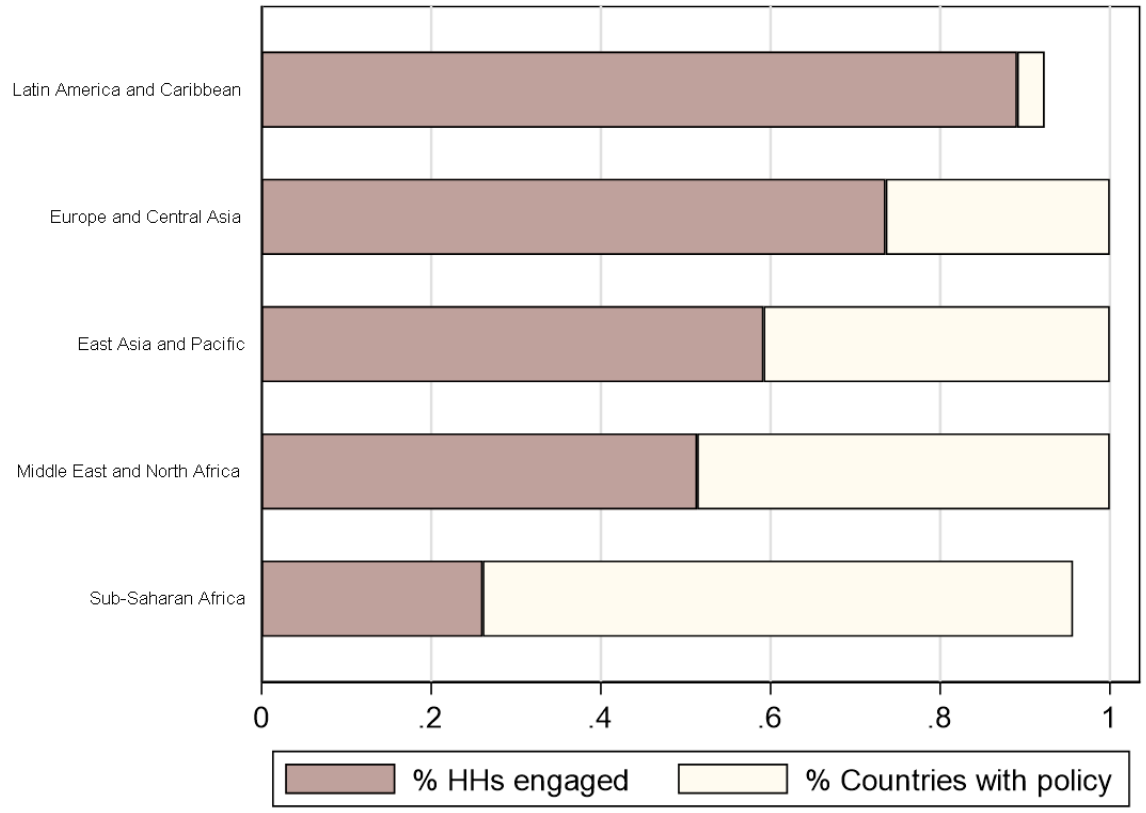
The data show that nearly all governments, including in low- and middle-income countries, swiftly put distance learning programs in place. These policies include remote instruction through TV, radio, mobile phones, take-home assessments, sessions with the teachers in person or virtually, and any other form of engagement. On average, over 90% of countries had a policy in place. While there is a common perception that policy is slow and rigid, this demonstrates governments' ability to adapt policy to new and pressing needs, even in low resource settings.

However, the gap between policy intent and the services received by households in practice is large. In sub-Saharan Africa, where the policy-practice gap is largest, while over 90% of countries had a distance learning policy in place, less than 30% of households received any distance education service in practice. Moreover, the policy-practice gap varies by region and does not follow expected patterns, such as GDP per capita. The largest gaps are observed in sub-Saharan Africa (SSA), followed by the Middle East and North Africa (MENA), East Asia and the Pacific (EAP), Europe and Central Asia (ECA), with the smallest gap in Latin America and the Caribbean (LAC). In absolute terms, the gap in LAC is small (around 5%), suggesting this is not the binding constraint to effective distance learning in the region, while in SSA, MENA, and EAP, the gap is substantial,

ranging from 40% to 60%, and is of primary concern. This reveals there is much to learn from LAC's success in connecting policy to practice. Moreover, while these patterns mimic regional patterns of low learning levels, they do not correlate as strongly with GDP per capita, suggesting that as economies develop the policy-practice gap does not necessarily close, necessitating a concerted effort to address the gap.

Altogether, we find that most countries, even in low-income settings, were swift to adopt policy, yet lackluster in ensuring the policy was translated into practice. This reveals that the policy-practice gap is a first-order issue and requires significant attention.

Figure 1: Policy vs. Practice – Distance Learning During COVID-19 by Region



Notes: This figure visualizes the extent of the policy-practice gap. The figure compares the percentage of countries in the region that had a distance learning policy in place to the percentage of households that engaged with the distance learning modality with the highest reach during school closures (averaged across countries in the region). Specifically, the distance learning engagement variable for each country is calculated as the highest value across modalities that children were asked about – TV, radio, mobile phones, take-home assessments, sessions with the teacher, or any other engagement. The distance learning 'policy' data comes from UNESCO's Education Response Surveys (Iterations 1-3) during 2020/2021, and the 'practice' data comes from the World Bank's Household Monitoring Survey.

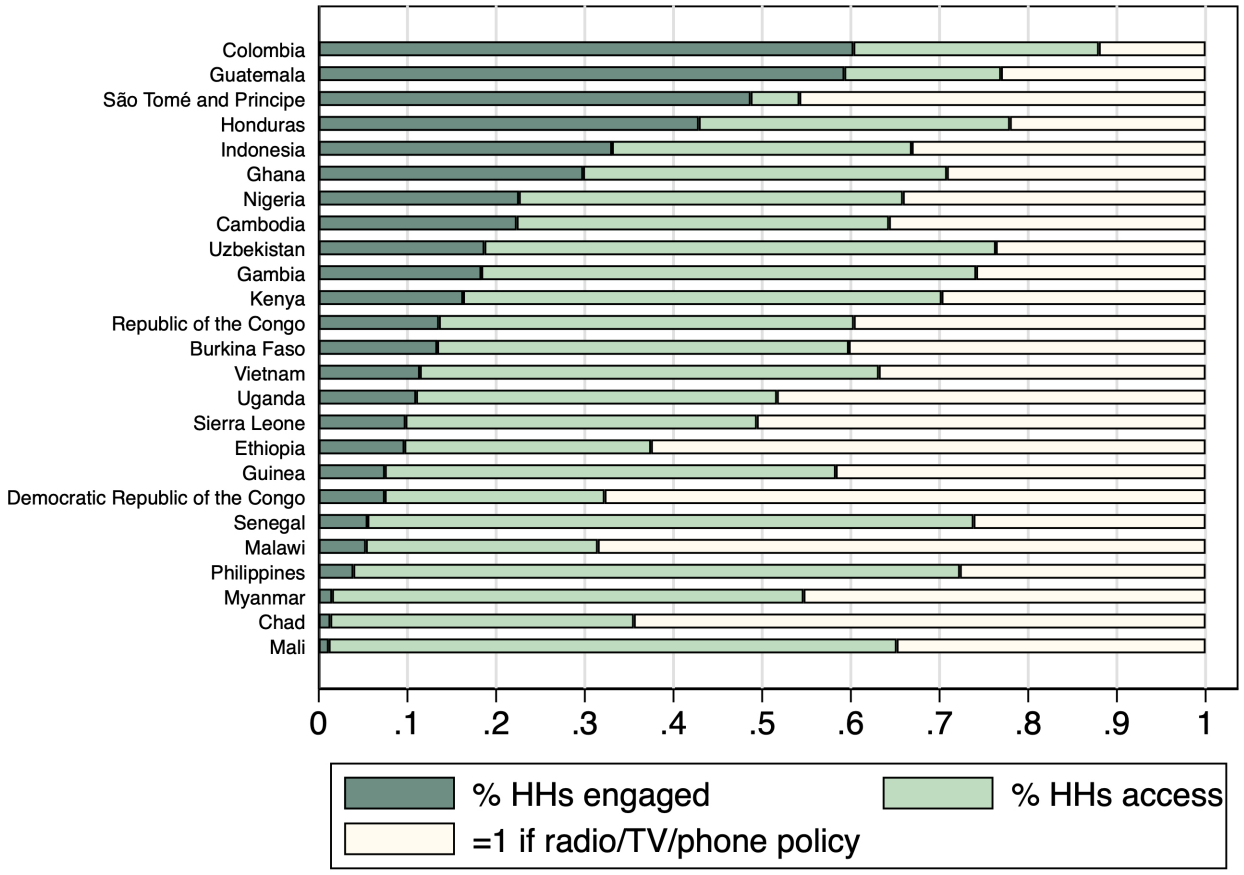
III.B Gap Components: Naive Policies or Ineffective Service Delivery?

We provide a new decomposition of the policy-practice gap along two core dimensions: unrealistic or "naive policies" (e.g., delivering radio-based instruction when households don't have access to radios) vs ineffective service delivery (e.g., households have radios, but instruction is aired at a time households find difficult to tune into). To do so, we quantify the percentage of households that have access to modalities used for remote education delivery during the pandemic, such as internet, radio, television, or mobile phone access using data from the DHS surveys. By adding this measure, we can decompose the policy-practice between (a) policy intent to deliver the service to (b) theoretical ability access the service to (c) actual engagement in the service by households. The distance between (a) and (b) captures the extent to which the policy was naive or realistically tailored to the contextual environment. The distance between (b) and (c) captures the extent to which the service was effectively delivered.

We find that in most cases the policy-practice gap is driven by ineffective service delivery rather than naive policies. Indeed, for two-thirds of all countries examined, ineffective service delivery is the largest share of the gap. Many policies were well suited to contextual realities (e.g., planning for radio instruction in contexts where many households had access to radio, rather than planning for online instruction where internet access was limited) but were often poorly implemented. For example, Figure 2 shows that in Senegal and the Philippines, over 70% of households had access to distance learning modalities, yet less than 10% of households engaged in them, showing that the majority of the gap was due to lack of effective service delivery rather than naive policies.

Of note, the data show substantial heterogeneity in which dimension dominates by country. This motivates explicitly measuring the components of the policy-practice gap to diagnose and address gaps in each context. For example, while Senegal and the Philippines have a 68-percentage point service delivery gap, double the size of their naive policy gap (26 percentage points), Ethiopia's composition is flipped: 27 percentage points in terms of ineffective service delivery and a naive policy gap of 67 percentage points. This reveals the need to explicitly measure and quantify policy-practice gaps in a given country to address the relevant bottleneck and in turn ensure policies translate into practice. If a policy is naive, the remedy is very different than poor service delivery. A country might choose to prioritize a policy response focused on mobile-based phone tutoring by teachers if access to radio is low but access to mobile phone is high. However, if service delivery is the bottleneck in radio programming, governments can ensure programming is aired at a more convenient time so that households tune in and the program is interactive enough to keep students engaged.

Figure 2: Components of the Policy-Practice Gap –
Naive Policy vs Ineffective Service Delivery by Country



Notes: The figure above decomposes two components of the policy-practice gap: naive policy versus effective service delivery. To make this comparison, we quantify the extent to which the gap can be attributed to access to distance learning modalities (e.g., TV/radio/mobile) during 2020/2021. Thus, by adding this measure we can quantify the difference between (a) policy to (b) access to (c) engagement. The distance between (a) and (b) captures the extent to which the policy was realistic and tailored to the contextual environment (e.g. do households own radios). The distance between (b) and (c) captures the extent to which the service was effectively delivered (e.g., if households owned radio, did they tune into distance education service). All countries in the figure above had a distance learning policy using at least one of the following modalities – TV, radio, and mobile phones. Household access data is obtained from DHS surveys and is calculated as the average of the percentage of households that possess a TV, a radio, and a mobile phone respectively. Finally, the distance learning engagement variable for each country is calculated as the highest value across TV, radio, and mobile phone engagement for the country. The distance learning policy data comes from UNESCO's Education Response Surveys (Iterations 1-3) during 2020/2021, and the 'practice' data comes from the World Bank's Household Monitoring Survey.

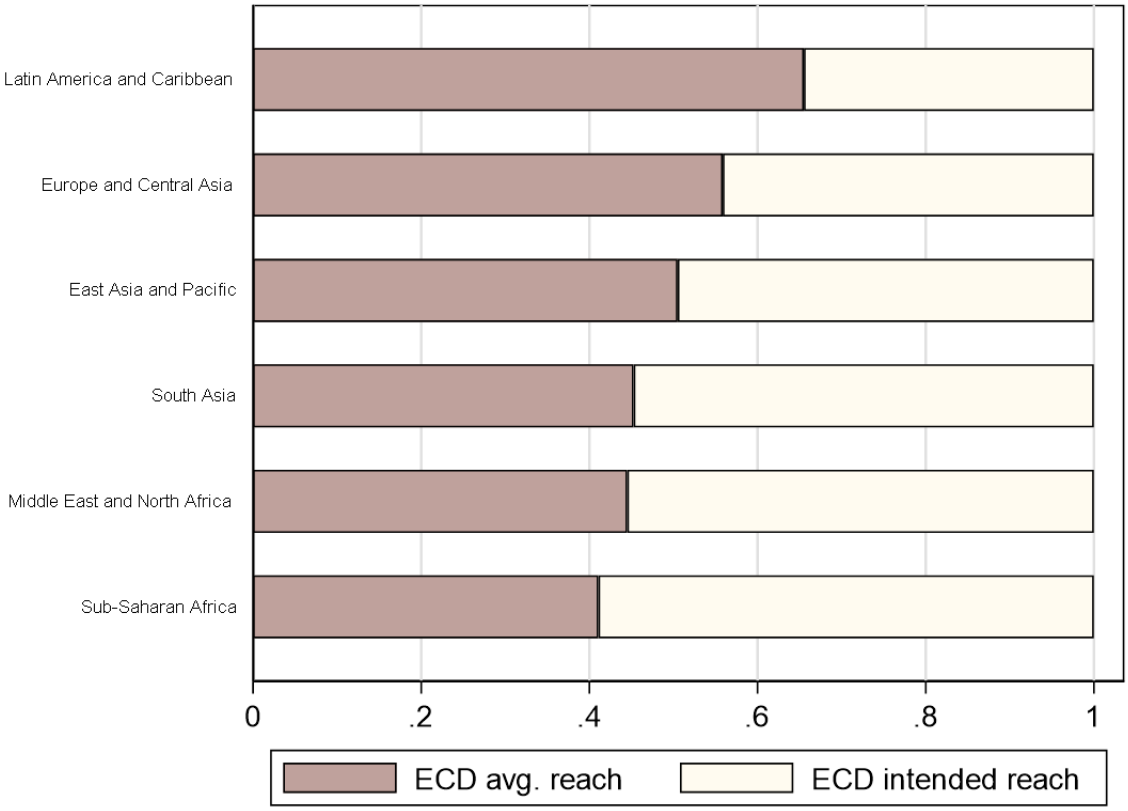
III.C The Policy-Practice Gap is Persistent Across Settings

We explore education policy-practice gaps prior to COVID-19 and for a broader set of policies across settings. We focus on a policy which has received substantial attention in recent years: early childhood development (ECD) programs. ECD has been shown to be one of the most cost-effective educational investments (Gertler et al. 2014). Over the last decade, UNICEF estimates that 87 countries have established national ECD policies or action plans, representing sweeping and swift policy adoption. However, it is unclear to what extent these policies and action plans have translated into practice.

Using data from SABER, we find large gaps between this education policy and services households receive in practice. Figure 3 delves into this gap in depth (Appendix Figure A1 includes each country). The policy-practice gap for ECD is over 50 percentage points on average. This reveals substantial scope to further connect policy to practice. Moreover, this shows that the policy-practice gap is not specific to a single policy or setting and extends from distance learning to ECD and from a COVID-19 response to a more general education policy. Moreover, regional patterns observed during COVID-19 persist, with the smallest gaps in Latin America and the largest in Sub-Saharan Africa. Latin America and the Caribbean has the smallest gap (34.5), followed by Europe and Central Asia (44.1), East Asia and Pacific (47.4), South Asia (54.8), the Middle East and North Africa (55.5) and sub-Saharan Africa (58.8). The similarity in regional policy-practice gaps in COVID-19 and non-COVID-19 settings reveals that these patterns are persistent and systemic.

The regional trends in the policy-practice gap both during and pre-COVID-19 do not appear to correlate strongly with other potentially expected indicators such as GDP per capita. For example, the Middle East has much higher GDP per capita than Latin America, yet a larger policy-practice gap. Rather, this pattern mimics learning outcomes trends. While Middle Eastern countries have successfully enrolled many children in school, their learning outcomes lag far behind other wealthy countries (Angrist et al. 2021). Similar to earlier findings, this suggests that as economies develop the policy-practice gap does not necessarily close, necessitating a concerted effort to address the gap.

Figure 3: Education Policy vs. Practice – ECD Programs Prior to COVID-19, by Region



Notes: The figure above visualizes the comparative gap between early childhood development policy intent and reach by region (2010-2018). Only countries that had greater than one program in place relating to early childhood development have been included for this figure. The coverage in practice variable was constructed by combining many indicators relating to early childhood development pre-sourced from MICS, WHO, and UNAIDS and country estimates averaged across countries in the region are shown here. We use mid-points of the ranges across all sub-indicators as a best estimate for the ECD policy intended and practice actual reach in the country. This data comes from World Bank's Systems Approach for Better Education Results (SABER) for 35 countries with available data.

IV Conclusion

We show that while governments are often perceived to be rigid and slow, they can relatively swiftly adopt and adapt new policies. Yet the distance between policy and effective practice is substantial and stubborn. Latin America provides a bright spot, with a high share of policies translating into practice. Future research into the Latin America success story could shed light on mechanisms to close the policy-practice gap where it's needed most. In some regions, such as sub-Saharan Africa, the policy-practice gap is up to 60% and is a first-order issue. In many cases, the policy-practice gap is not due to naive policy but rather ineffective policy implementation or service delivery. These findings highlight the need to focus on implementation science in education, which has to date received less attention in education although there is growing interest in health (Cook et. al., 2013; Madon et al., 2008). Implementation is rarely measured, accounted for, or rigorously studied in education (Angrist and Meager, 2023), despite growing recognition of its importance (Moir 2018; Williams et al. 2020; Muralidharan and Singh, 2021).

Governments and the international education community should pay more attention to ensuring policies are indeed translated into practice. Many governments and international development organizations devote significant time and resources to identifying and developing policy objectives. Yet the process of putting findings into practice remains severely underfunded (Hiss 2004). Greater research and investment in bridging the gap between policy and practice is needed to address a persistent global learning crisis (Pritchett 2013; Angrist et al. 2021).

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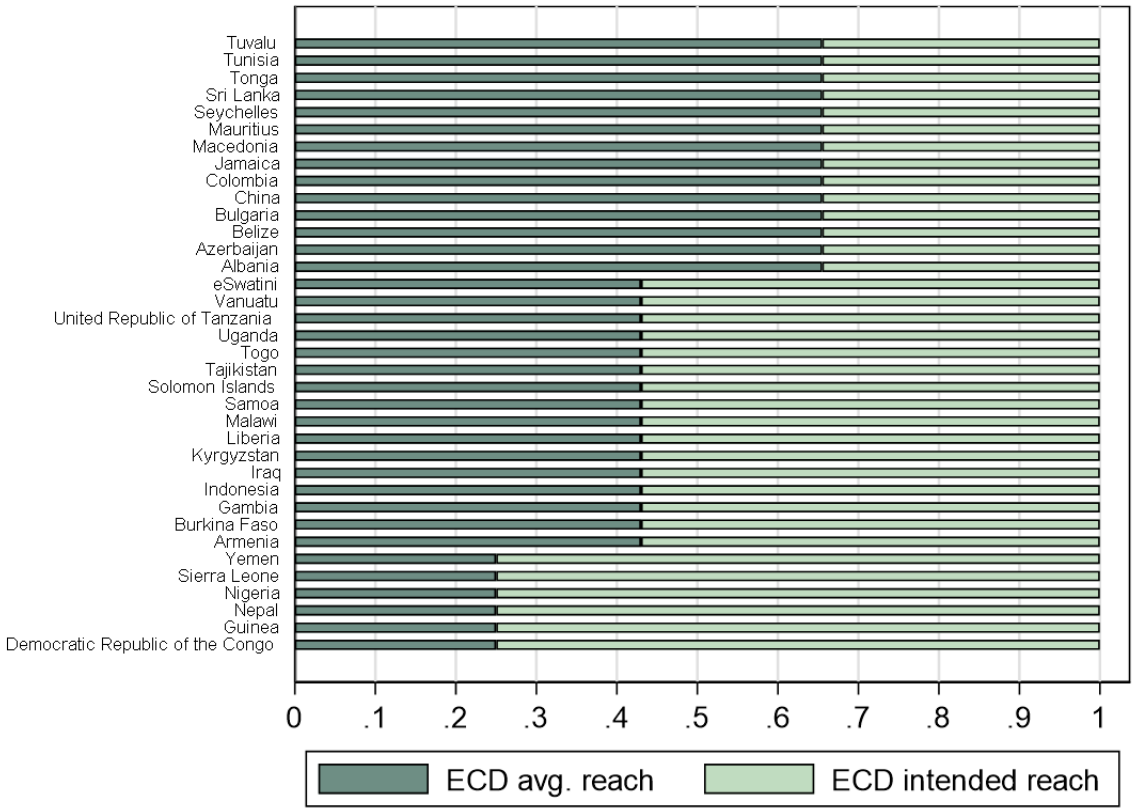
A Appendix Figures

Figure A1: Education Policy vs. Practice – ECD Programs, by Country

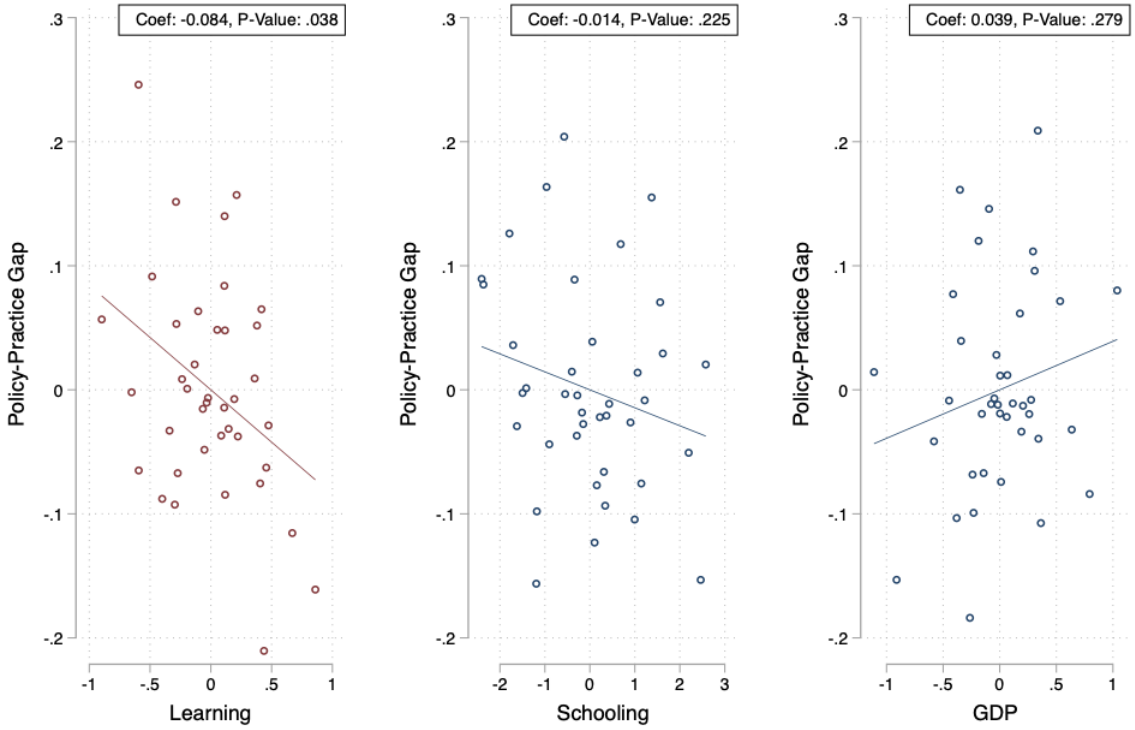


Notes: The figure above visualizes the gap between early childhood development policy intent and reach by country (2010-2018). Only countries that had greater than one program in place relating to early childhood development have been included for this figure. The coverage in practice variable was constructed by combining many indicators relating to early childhood development pre-sourced from MICS, WHO, and UNAIDS and country estimates averaged across countries in the region are shown here. We use mid-points of the ranges across all sub-indicators as a best estimate for the ECD policy intended and practice actual reach in the country. This data comes from World Bank's Systems Approach for Better Education Results (SABER) and is available for 35 countries.

B Corollary Analysis

We conduct a corollary analysis, exploring the policy-practice gap as the dependent variable and GDP per capita, schooling, and learning as the independent variables (Appendix Figure A2). GDP per capita in our sample of LMICs does not have a statistically significant relationship with smaller policy to practice gaps (p-value = 0.279). While these estimates are not causal, they reveal a series of stylized facts. Even in richer economies, policy-practice gaps persist, suggesting that economies don't simply "grow out of" policy-practice gaps, necessitating more concerted attention and intervention. Moreover, we see that education systems which manage to achieve higher levels of learning are most likely to have smaller gaps between policy and practice (β coefficient of -.084; p-value of 0.038), but this is not the case for education systems which manage to achieve higher schooling (β coefficient of -.014; p-value of 0.225). This fact is consistent with theories on state capability on achieving inputs more easily than outcomes (Andrews, Pritchett, and Woolcock 2017). Education quality is a further downstream outcome than quantity. A policy removing school fees can improve access to school immediately with a minimal policy-practice gap, enabling policies to quickly translate into more schooling. However, the link to quality is more complex, system-wide, long-term, and requires dedicated effort to ensure policy translates into practice, and in turn, improved learning.

Figure A2: Understanding Links to the Policy-Practice Gap – Schooling, Learning, and GDP per Capita



Notes: This figure shows a scatter plot where each dot represents a country and the line of best fit of the conditional relationship between schooling, learning, and log GDP per capita, controlling for each other, and the gap between policy and practice. We run a multivariate regression with the dependent variable as the gap between policy and practice, coded as difference between whether a country adopts a policy and the percentage of households who receive the service in practice. We also include region-fixed effects. Schooling data are expected years of school for the average child in a country from the World Bank Human Capital Index (HCI); Learning data are Harmonized Learning Outcomes from the World Bank HCI; and GDP per capita data are from the World Bank World Development Indicators. All indicators use the value from the most recent year available.