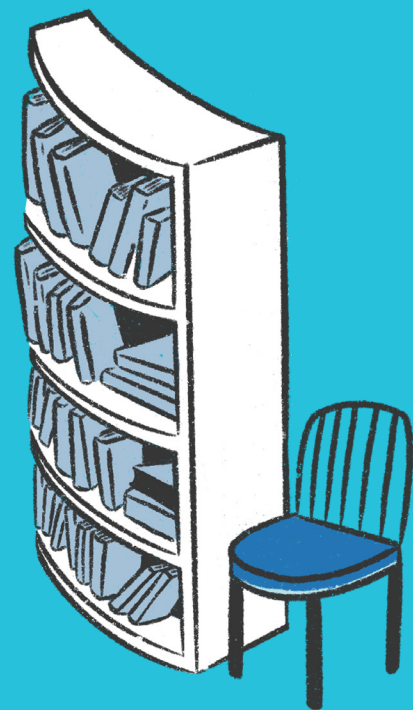




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FOREWORD

Before Covid-19, the world was facing a learning crisis: more than half of 10-year-old children in low- and middle-income countries could not read and understand a simple text. These children were in Learning Poverty. Additionally, 258 million children and youth of primary- and secondary-school age were out of school. This was a tragedy that had been building up over the years and that had gained attention because we are able to measure it. It is one of the most urgent crises of our times. To galvanize action, the World Bank launched a global learning target: to decrease, by 2030, the share of children in Learning Poverty by at least half.

With Covid-19, the world now faces a crisis within a crisis. The pandemic has brought twin shocks to education—massive school closures and a subsequent deep economic recession—that threaten to exacerbate the learning crisis, especially for the poor. To combat the virus, schools were closed in more than 180 countries, leaving—at its peak in early April—close to 1.6 billion children and youth out of school. According to our initial estimates, the economic recession could result in close to 7 million students dropping out of school. In the absence of appropriate response, children's learning, nutrition, and mental health will be dramatically affected. Early estimates indicate that each young person in this generation might lose US\$16,000 (in net present value) in foregone earnings.

Achieving the global learning target is now even more challenging and will require substantial ramping-up of efforts. Each country must define its own path and its own actions, taking into account what is politically acceptable, operationally feasible, and technically correct. And Ministers of Education do not have until 2030 to achieve a target. Ministers of Education have a short policy window in which they need to enact changes. And to generate changes and make evidence-based decisions, they need fast and affordable data.

When I was a Minister of Education in my home country, Peru, I used data as a compass to guide my decision-making. In fact, many data points traced the route towards critical changes to the education system. As a minister, I needed several data points. First, I required data on outcomes. Information on students' learning to understand the status of the education system, set goals around learning, measure progress towards these goals, and pinpoint schools and institutions that were excelling and others where we needed to intensify our efforts. Second, I required data on outputs. We needed to know what was happening inside classrooms to understand why learning was (or was not) taking place. And we needed to know if inputs were reaching schools with the right quality and at the right time. To collect this information, we created an instrument called Semaforo Escuela (which translates to “School Stoplight”) that was nationally, regionally and locally representative and that allowed for inference at the different levels of education. With Semaforo Escuela, we were able to monitor if principals were in schools, if children and teachers were in the classrooms, how many hours were

spent in teaching, if books and other teaching supplies were getting to school before the start of the academic year, if students were receiving school meals on time, if there was school violence, and other critical variables that influenced learning outcomes. This was a crucial element of my tenure, and it helped guide not only national-level decisions, but those of the regional and local authorities.

While there are many instruments and initiatives that measure quality of education, in my experience and in conversations with ministers of education all over the globe, there is something still missing. There continues to be an unmet need for comprehensive and quality data to strengthen decision-making. And there are several

ACKNOWLEDGEMENTS

This document was produced by Sergio Venegas Marin, Reema Nayar, and Halsey Rogers under the overall guidance of Jaime Saavedra and Omar Arias. The indicators were developed by the Global Education Dashboard team, which also includes João Pedro Azevedo, Brian William Stacy, Marta Carnelli, and Alice Danon, with major contributions from Ezequiel Molina and from Zahid Hasnain, Daniel Rogger, Kerenssa Mayo Kay, and Anita Sobjak of the World Bank’s Bureaucracy Lab. The team thanks Melissa Ann Adelman, Hanna Katriina Alasuutari, Samer Al-Samarrai, Diego Ambasz, Luis Alberto Andres, Ciro Avitabile, Juan Baron, Magdalena Bendini, Tara Betaille, Michael Crawford, Amanda Devercelli, Sophie Charlotte Emi Ayling, David Evans, Margaret Grosh, Alaka Holla, Renata Lemos, Toby Linden, Libbet Loughnan, Diego Luna Bazaldua, Charlotte McClain-Nhlapo, Adelle Pushparatnam, Alonso Sanchez, Tigran Shmis, Iva Trako, Julieta M. Trias, Michael Trucano, Maria Oviedo, Maria Jose Vargas Mancera, and Jeremy Veillard for their contributions. During its concept note review stage, the project benefited from the technical comments and support of Deon Filmer, Amer Hasan, Steve Knack, Gayle Martin, Harry Patrinos, Dena Ringold, and Shobhana Sosale. The team also received guidance from a Technical Advisory Board composed of Luis Crouch, Jorge Ferrão, Pamela Grossman, Sean Harford, Susanna Loeb, Silvia Montoya, Karthik Muralidharan, Jean Philbert Nsengimana, Ritva Reinikka, Sara Ruto, Justin Sandefur, Tarek Shawki, Rossieli Soares, Jakob Svensson, Miguel Székely, and George Werner. Additionally, the team has consulted with multiple organizations, including the Global Campaign for Education-US, Oxfam, and the Center for Inclusive Policy. The handbook was art directed and designed by Nicole Hamam with illustrations by Margaret Flatley. The work was made possible thanks to the support from our partners—Bill and Melinda Gates Foundation, UK’s Department for International Development, and the Government of Japan.

INTRODUCTION

Policymakers in low- and middle-income countries who are working to improve student learning often find themselves flying blind. They see the budget that goes into education and (sometimes) the learning that students come out with, but they lack information on many of the crucial factors in between—the practices, policies, and politics—that drive those learning outcomes. The Global Education Policy Dashboard (GEPD) shines a light on those hidden drivers.

Many countries, despite having substantially increased access to education for their children and youth, now realize that they are facing a learning crisis (UIS 2017, World Bank 2018). In low- and middle-income countries, despite near universal enrollment in primary school, 53 percent of children could not read and understand a simple story by late primary age (World Bank 2019). This statistic underlined the reality that schooling is not the same as learning—even though education policy often assumes that it is (Pritchett 2013). It also showed just how far off track the world is from the aspiration embodied in Sustainable Development Goal 4, of providing quality education to all children



From Awareness to Action: Addressing the Learning Crisis

THE HUMAN CAPITAL PROJECT (HCP), a WBG global initiative to accelerate investments in people for greater equity and economic growth, is building political commitment for reforms and investments that will transform human capital outcomes for the good of people and economies. As a first step under the HCP, the Bank in 2018 released a Human Capital Index (HCI) for 157 economies, attracting considerable attention to the challenge. The Index provides an easy-to-understand answer to the question “How much human capital will a child born today acquire by the end of secondary school, given the risks to health and education that prevail in the country where she was born?” The education component of the HCI is the learning-adjusted years of schooling measure, which combines quantity and quality of education into a single outcome metric. Because much of the HCI’s overall variation from country to country is due to differences in education outcomes, the Index makes countries keenly aware of how the learning crisis undermines their human capital and limits the lifetime opportunities of their children (Kraay 2018, Filmer et al 2018).

To shine the spotlight even more brightly on this crisis, in September 2019, the World Bank and the UNESCO Institute for Statistics (UIS) introduced the concept of **Learning Poverty (LP)**, drawing on a newly assembled data on learning and participation. Learning Poverty is defined as the percentage of 10-year-olds who cannot read and understand a simple story (with out-of-school primary-age children counted as not reading). Using these data, the Bank and UIS estimated that 53 percent of children in low- and middle-income countries could not read and understand a simple story by the end of primary school. Moreover, progress was slow: without significant acceleration in efforts, the global rate of learning poverty would still be 43% in 2030, making it impossible to reach the SDG 4 aspiration of quality secondary education for all (World Bank 2019). Beyond releasing the Learning Poverty indicator, the WBG launched a campaign focused on improving learning outcomes in client countries and established an ambitious new Learning Target, which aims to cut by at least half the global rate of Learning Poverty by 2030.

With the COVID-19 pandemic generating widespread learning losses, the world now faces an even direr scenario. Global Learning Poverty is projected to rise to 63%, making even more difficult to achieve the target of cutting Learning Poverty by half by 2030 (Azevedo 2020). But as the problem grows, so does the commitment from countries to do what’s needed to address the learning crisis. Around the world, among countries and development partners, we see an ever-greater call for action to protect and build the foundational skills that are central to human capital accumulation.

But awareness of the challenge is just a first step: while the Index and the Learning Target are designed to motivate action, other tools are needed to guide that action. Outcome indicators alone do not tell a country what steps are necessary for improvement. Similarly, the HCI and LP indicators are likely to change only

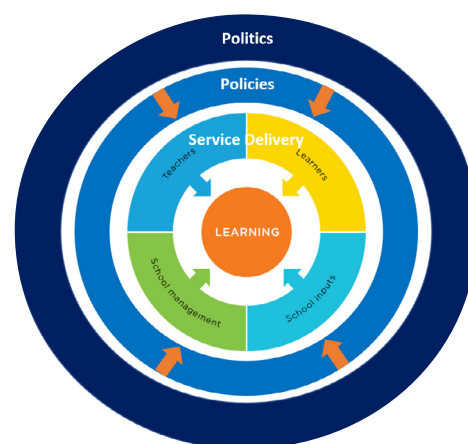
While every country needs to identify priorities for investment and policy reforms that are best suited to its own context, the dashboard can provide a much stronger evidence base for that work.

slowly, leaving countries in need of shorter-term metrics of progress. When countries act on the drivers of learning, they need indicators that can highlight areas to improve and provide useful feedback on whether they are moving in the right direction.

Why These Indicators? Building on the WDR 2018

THE STRUCTURE OF THE DASHBOARD BUILDS ON THE WDR 2018 conceptual framework outlined earlier (Figure 1). At the center are the outcome indicators capturing learning for all (meaning learning combined with access). These are ringed by indicators representing the four main school-level service-delivery factors, labeled as “practices”: prepared learners, capable teaching, appropriate inputs and infrastructure, and capable school management that brings the other factors together to produce learning. The next set of indicators proxy for the policies that affect each of these areas, and the final set captures the political context and bureaucratic capacity of the system. Sustained system-wide improvement in learning will likely depend on better performance in these policy and politics domains.

FIGURE 1:
STRUCTURE OF THE DASHBOARD



In selecting and developing the indicators for the dashboard, the team applied three main criteria:

1. First, each indicator should **predict better learning and access** outcomes (based on sound empirical evidence or a strong conceptual presumption to support the relationship).
2. Second, with concerted effort, it should be possible to **improve the indicator over a relatively brief period**—1 to 2 years, say—so that the indicator can serve as a marker of progress for a government committed to the longer-term challenge of improving learning.
3. And third, it should be possible to generate the data for the indicator every 2 years **at a reasonable cost**.

The list includes 39 indicators distributed among the four levels symbolized by Figure 1: 5 outcome measures, 11 indicators of practices (or service delivery), 18 policy levers, and 5 indicators for politics and bureaucratic capacity. Figure 2 provides a summary of all the indicators that are included. Please refer to Detailed Indicator Information for more information on each indicator, together with the rationales for and definitions of each.

The team defined these indicators based on extensive literature reviews and numerous discussions with experts inside and outside the World Bank. Many of the indicators are adapted or borrowed from existing initiatives, such as the Service Delivery Indicators (SDI) and the Systems Approach for Better Education Results (SABER) Policy Intent frameworks.

Instruments & Data Sources

THE DASHBOARD PROJECT COLLECTS NEW DATA IN EACH COUNTRY using three new instruments: a School Survey, a Policy Survey, and a Survey of Public Officials. Data collection involves school visits, classroom observations, legislative reviews, teacher and student assessments, and interviews with teachers, principals, and public officials.

More information pertaining to each of the three instruments can be found below:

SCHOOL SURVEY The School Survey collects data primarily on practices (the quality of service delivery in schools), but also on some *de facto* policy indicators. It consists of streamlined versions of existing instruments—including Service Delivery Surveys on teachers and inputs/infrastructure, Teach on pedagogical practice, Global Early Child Development Database (GECDD) on school readiness of young children, and the Development World Management Survey (DWMS) on management quality—together with new questions to fill gaps in those instruments. Though the number of modules is similar to the full version of the Service Delivery Indicators (SDI) Survey, the number of items and the complexity of the questions within each module is significantly lower. The School Survey includes 8 short modules: School Information, Teacher Presence, Teacher Survey, Classroom Observation, Teacher Assessment, Early Learner Direct Assessment, School Management Survey, and 4th-grade Student Assessment. For a team of two enumerators, it takes on average about 4 hours to collect all information in a given school. For more information, refer to the Frequently Asked Questions.

POLICY SURVEY The Policy Survey collects information to feed into the policy *de jure* indicators. This survey is filled out by key informants in each country, drawing on their knowledge to identify key elements of the policy framework (as in the SABER approach to policy-data collection that the Bank has used over the past 7 years). The survey includes questions on policies related to teachers, school management, inputs and infrastructure, and learners. In total, there are 52 questions in the survey as of June 2020. The key informant is expected to spend 2-3 days gathering and analyzing the relevant information to answer the survey questions.

SURVEY OF PUBLIC OFFICIALS The Survey of Public Officials collects information about the capacity and orientation of the bureaucracy, as well as political factors affecting education outcomes. This survey is a streamlined and education-focused version of the civil-servant surveys that the Bureaucracy Lab (a joint initiative of the Governance Global Practice and the Development Impact Evaluation unit of the World Bank) has implemented in several countries. The survey includes questions about technical and leadership skills, work environment, stakeholder engagement, impartial decision-making, and attitudes and behaviors. The survey takes 30-45 minutes per public official and is used to interview Ministry of Education officials working at the central, regional, and district levels in each country.

While most dashboard indicators are derived from data collected using these instruments, the team also draws on existing data for a small number of indicators. This is particularly key for outcome data (school participation and learning), where the team reports existing data wherever possible. Similarly, because factors outside the education system also affect education outcomes, the dashboard also includes a few indicators based on existing data from other sectors. For example, many factors that affect whether children are in school and ready to learn lie outside the education system. Thus, policy levers for this practice area include indicators like the share of children that are well-nourished and the share of children that are fully immunized, among others; these indicators draw on non-dashboard data sources. Please refer to the Detailed Indicator Information for more details.

Implementing the GEPD in a Country

POPULATING THE DASHBOARD REQUIRES, aside from the expert-filled Policy Survey, collecting nationally representative data from two field surveys, as noted above—the school and public official surveys. The sample sizes are as follows:

The implementation of the GEPD is always customized to the needs and context of each country. However, there are some steps that both the GEPD team and the country counterparts must follow for successful implementation; these are listed in Table 1.

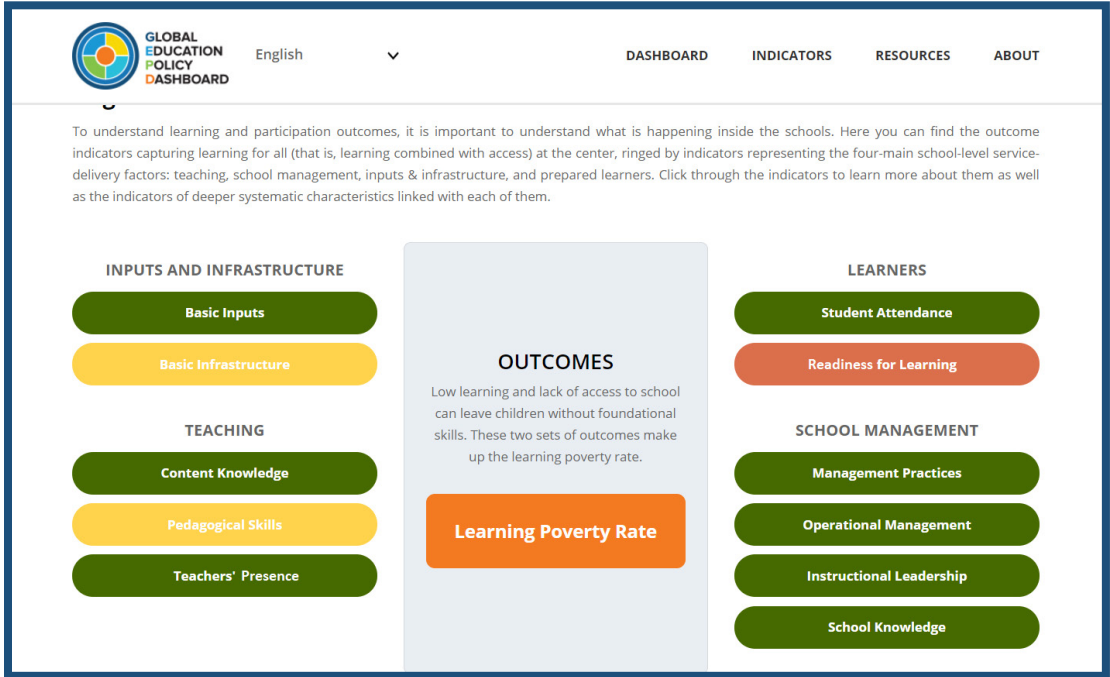
While the actual start of the fieldwork might sometimes be timed to take advantage of other ongoing data collection efforts in a particular country, the actual implementation – from training of enumerators to reporting of the validated information – is expected to take three months.

Potential benefits of participating in the GEPD vary from country to country depending on the maturity of existing country data systems. In some countries, the School Survey may serve as the only source of data to identify problems in the education system, so the team may focus its efforts on guaranteeing that the GEPD can be regularly reapplied. Other countries may have strong data monitoring systems already; in these countries, the GEPD 1) helps verify the quality of the data already being collected, 2) helps identify gaps that could be filled in the data that are collected as part of the country’s regular monitoring, and 3) offers a wealth of new data collection instruments, training materials, fieldwork methodologies, and other resources that these countries could use in their ongoing data collection and reporting efforts.

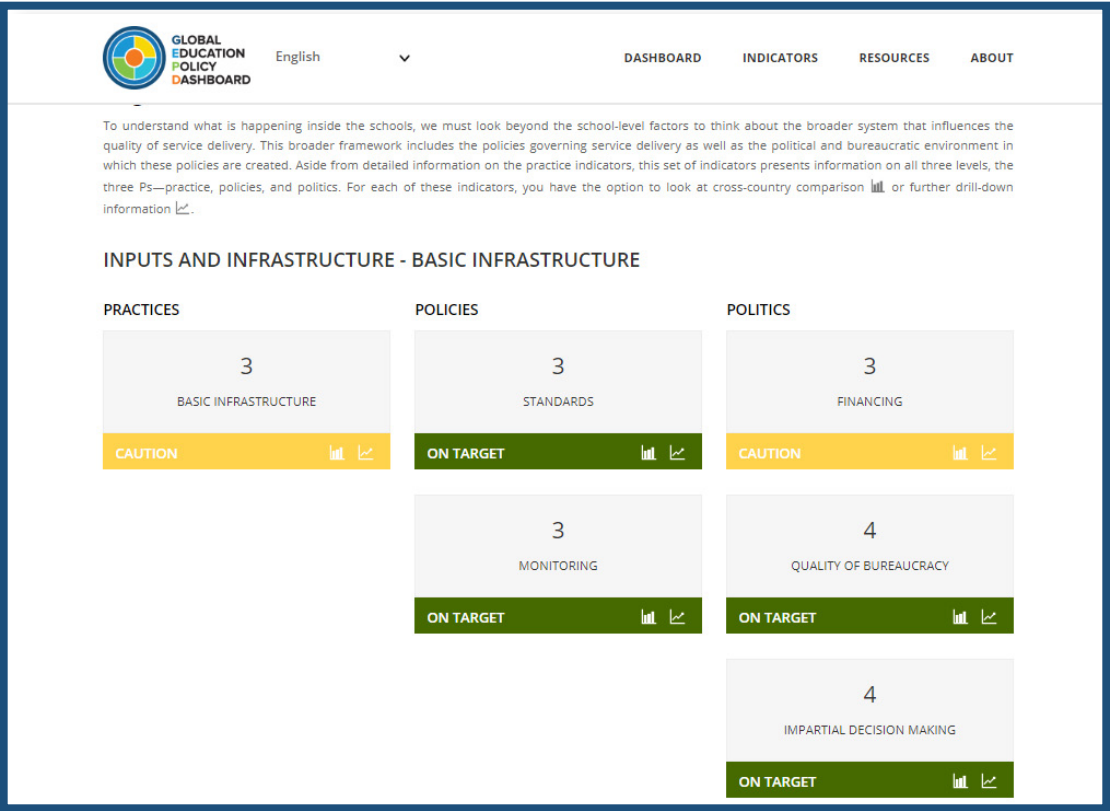


Visualizing the GEPD Interface

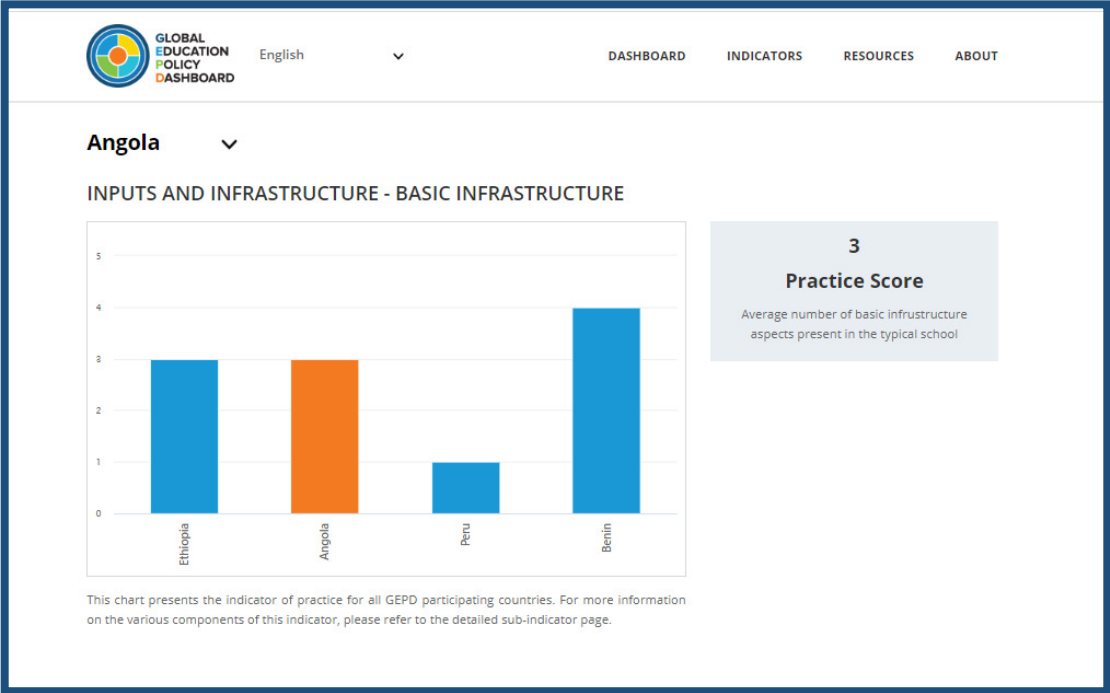
EACH COUNTRY HAS ITS OWN LANDING PAGE that shows the outcomes (learning indicators), and then all of the school level Practices that affect learning. The design is such in order to promote progress on the key drivers that could be driving low learning.



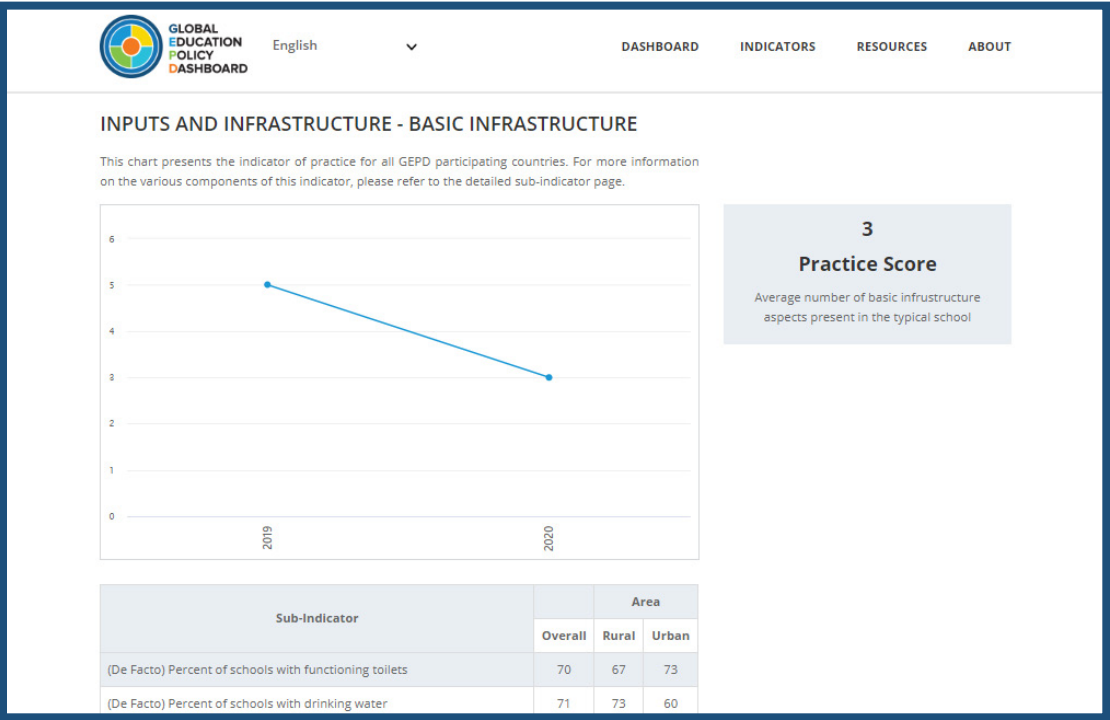
From there, the user will have the option to drill down on specific issues or areas that are relevant to the country. For instance, if the user clicks on Basic Infrastructure, the user will be sent to the following page with more information on the topic.



And see how they compare to other countries



And the GEPD interface is designed in such a way that countries can monitor progress over time



Detailed Indicator Information



Learning Poverty

LEARNING & PARTICIPATION

This outcome indicator measures whether students are learning, by reporting on the combination of schooling and learning at the end of primary, building on the indicators of reading proficiency and school enrollment generated in the SDG 4 reporting process.

INDICATOR

Share of children that are not able to read a short age-appropriate text with comprehension around age 10. In cases where it is possible, this indicator will be disaggregated by gender.

BACKGROUND

The benefits of education stem not just from the number of years a student spends sitting in the classroom, but from the skills that a student acquires (Prichett 2013; World Bank 2018). For example, research suggests that it is the cumulative skills acquired, and not schooling, that serves as a predictor of economic growth (Hanushek & Woessmann 2012). In many studies, simple measures of foundational skills are able to explain wages even after controlling for the workers’ years of schooling (Hanushek et al. 2015; Valerio et al. 2016). Because of this, it is important to report on indicators that speak to the acquiring of foundational skills that are central for other learning to take place and for the overall formation of productive workers; one of such skills is basic literacy (World Bank 2019). To address this need, the World Bank recently launched the Learning Poverty indicator, which combines shortfalls in school access and learning in one simple measure. It measures a straightforward concept: the share of children around the world who are not able to read a short age-appropriate text with comprehension around age 10. Because, as the SDGs emphasize, children should be both enrolled in school and learning, out-of-school children are counted as learning-poor.

MEASUREMENT

Instrument

EXISTING DATA
SOURCE

Data Source

Global Learning Assessment Database (<https://github.com/worldbank/GLAD>)

Approach

Learning Poverty is the weighted average of the share of the population below the minimum proficiency level, adjusted by the out-of-school population.

$$LP = SD + [(1-SD) \times LD]$$

where:

LP = Learning poverty

Proficiency by End of Primary

LEARNING

This outcome indicator measures whether students are learning, by reporting data from well-designed math and language student assessments.

INDICATOR

Proportion of children at the end of primary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics. Where data allows, this indicator will be disaggregated by gender, so that users can drill down on this variable.

BACKGROUND

Despite their great progress in increasing access to education for their children and youth, many countries now face a learning crisis: too often, schooling does not lead to much learning. As the WDR 2018 emphasized, realizing education's promise will require that countries place learning at the center of their education policies. The first step is to measure learning and highlight the challenge. This indicator therefore provides countries with a snapshot of how much learning is happening inside their classrooms, by reporting the results of well-designed student assessments and highlighting where there are no assessments available. This indicator will come directly from reporting by the UNESCO Institute of Statistics, the custodian of Sustainable Development Goal 4.

MEASUREMENT

Instrument

EXISTING DATA
SOURCE

Data Source

UNESCO Institute
of Statistics

Approach

For this learning measure, the dashboard team proposes to use indicator 4.1.2 of the SDGs: "Proportion of children at the end of primary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex." The team will coordinate closely with UNESCO UIS to include validated data used for reporting under the SDG monitoring process. It will thus benefit from the UIS's current initiative to define minimum proficiency levels for domains, as well as the linking/alignment needed to put the different assessments on the same scale.

As noted in the UIS metadata for this indicator, the indicator is calculated as the percentage of children and/or young people at the relevant stage of education achieving or exceeding a pre-defined proficiency level in a given subject:

Performance above the minimum level, $PL_{t,n,s}$, above minimum = p

where p is the percentage of students in a learning assessment at stage of education n, in subject s in any year (t-i) where $0 \leq i \leq 5$, who has achieved the level of proficiency that is greater than a pre-defined minimum standard, S_{min} . The minimum standard is defined by the global education community, taking into consideration regional

Teacher Presence

TEACHING

This indicator measures teacher attendance among a randomly selected set of teachers (up to 10 per visited school).

INDICATOR

Percent of teachers who are present in the school during an unannounced visit. This indicator will be disaggregated by the teacher's gender and urban/rural location.

BACKGROUND

The quality of teaching is a function of both a teacher's skills and a teacher's presence to ensure opportunities to use those skills to help students. To measure teacher presence, the GEPD collects and reports observational data on teacher attendance. Being present in the classroom is necessary (though not enough) for teaching and learning to happen. High levels of teacher absence severely impair students' ability to learn and result in significant losses of class time during the school year (Chaudhury et al. 2006; Bruns & Luque 2015; Lavy 2015). A recent study in seven Sub-Saharan African countries found that 44 percent of teachers were absent from class, either because they were absent from school, or because they were in the school but not in the classroom (Bold et al. 2017). And absence matters: experimental research in India has found that reducing teacher absence by 21 percent increased students' learning by 0.17 standard deviations (Duflo et al. 2012). Note that this indicator is meant to capture how well the system succeeds in getting teachers into the classroom—not to focus attention on the teachers themselves, but on the strengths or failings of the system that manages them.

MEASUREMENT

Instrument

SCHOOL SURVEY

Data Sources

Based on the Service Delivery Indicators (SDI) Instrument

Approach

The methodology for collecting the needed information is the following: the principal will be notified that a visit will take place within a two-week window. On the day of the visit, the field team will collect the teacher roster and check for presence in the school of a random sample selected from the list of teachers who are normally supposed to be teaching at the time of the visit. The number of teachers that are part of the sample is up to 10, depending on the size of the school visited. This is an adaptation of Chaudhury et al. (2006) methodology that allows for the reduction of the number of school visits to just one per school. Teachers' presence in the classroom will also be measured, but presence in the school will be the indicator reported in the dashboard.

Teacher Content Knowledge

TEACHING

This indicator measures the teachers' mastery of the content that they currently teach or are supposed to teach.



Basic Inputs

INPUTS & INFRASTRUCTURE

This indicator measures the availability of basic inputs in the average school. These inputs, based on the literature and general expectations, are (i) functioning blackboard and chalk, (ii) pens, pencils, and exercise books in 4th-grade classrooms, (iii) textbooks, (iv) basic classroom furniture, and (v) access to ICT.

INDICATOR

Average number of basic inputs (0-5) available in schools. This indicator is disaggregated by urban/rural location.

BACKGROUND

Basic inputs for learning are an important element of school quality. They serve as teaching aids for the teacher and help create an environment conducive to learning. Functional blackboards and chalk may promote learning because students learn better by having information presented through multiple modalities, especially through visual means (Mayer 2003). Pens, pencils, textbooks, and exercise books provide students with the opportunity to engage with the material in a way that enhances learning. On this point, there is literature outlining the relationship between opportunities for practice (which require these inputs) and learning outcomes. Similarly, while research connecting classroom furniture to learning is limited, it is reasonable to assume that lack of basic furniture could hinder learning—and that in any event, in the minds of stakeholders, any education system should provide basic furniture for students and teachers. Over the past decades, with the tremendous growth in ICT, many studies have investigated the effects of integrating ICT into teaching and learning. When used by well-prepared teachers, technologies can create opportunities for learning because they allow learners to access, extend, transform and share ideas and information in multimodal communication styles and formats. They help the learner to share learning resources and spaces, promote learner-centered and collaborative learning principles and enhance critical thinking, creative thinking and problem-solving skills (Majumdar 2013).

MEASUREMENT

✓ Instrument

SCHOOL SURVEY

✓ Data Sources

Service Delivery Indicators (SDI) Instruments
UNESCO – Guide to Measuring Information and Communications Technologies (ICT) in Education

✓ Approach

Questions directed to teacher and/or principal AND direct observation. For each of the elements included in this indicator, the questions go beyond basic availability to better capture the actual user experience. Rather than just measuring the availability of an input, they measure whether the input is present at the time of the visit, functional, of quality, and being used. For example:

How many PCs, laptops, and/or tablets are available at the school? [enumerator observes





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