

INTRODUCTION

The Global Education Policy Dashboard (GEPD): An innovative tool to measure drivers of learning outcomes in basic education

GEPD uses 3 data collection instruments to report on nearly 40 indicators that operationalize the World Development Report 2018 framework to track 3 areas for progress in education- Practices, Policies, and Politics. Using these indicators, the dashboard highlights areas where countries need to act to improve learning outcomes and allows a way for governments to track progress as they act to close gaps in these areas. For more information on GEPD, please visit www.worldbank.org/global-education-policy-dashboard

Figure 1. GEPD framework (practices, policies and politics), expanding on WDR 2018 framework



INSTRUMENTS OF DATA

The **School Survey** consists of 8 modules to collect data across 200-300 schools on practices (the quality of service delivery in schools) and de facto policy indicators. It consists of streamlined versions of existing instruments together with new questions to fill gaps in those instruments.

The **Policy Survey** collects information via interviews with ~200 officials per country at federal and regional level to feed into the policy de jure indicators and identify key elements of the policy framework.

The **Survey of public officials** collects information about the capacity and orientation of the bureaucracy and political factors affecting education outcomes. This survey is an education-focused version of the civil-servant surveys from the Bureaucracy Lab, WBG.

KEY TAKEAWAYS, RWANDA, 2020

- 3.8 years of learning adjusted years of schooling observed in Rwanda. GEPD Grade 4 proficiency is low at only 0.16%, with numeracy proficiency lower than language proficiency of students.
- Teacher content knowledge is poor at only 27%, attributed to poor teaching support and weak monitoring and accountability

systems. Only 44% teachers reported receiving feedback from principals after classroom observation in schools.

- Grade 1 proficiency of students is ~9%, with students scoring lower on executive functions and socio-emotional learning.
- Basic inputs and infrastructure are weak in areas of availability of functional blackboards, functional toilets and electricity in schools.
- Major gaps are seen in implementation of teaching support policies, teaching monitoring and accountability systems and selection and deployment policies for school principals.
- Primary education funding amount and efficiency of spending is low and education policy implementation is politicized, lowering bureaucratic capacity.

Table 1. GEPD Indicators, Rwanda, 2020

	Subtitle	Indicator	Overall
Outcomes	Learning	Proficiency by Grade 2/3	-999%
		Proficiency by End of Primary	%
		Proficiency on GEPD Assessment	0.2%
	Participation	Net Adjusted Enrollment Rate	%
Practices	Participation and learning	Learning adjusted years of schooling (in years)	3.8
	Teaching	Teacher Effort	80%
		Content Knowledge	27%
		Pedagogical Skills	NA%
	Inputs & Infrastructure	Basic Inputs	3.3
		Basic Infrastructure	3.1
	Learners	Capacity for Learning	9%
		Student Attendance	87%
	School Management	Operational Management	4
		Instructional Leadership	3.4
School Knowledge		4	
Management Practices		4.2	
Policy levels	Teaching	Attraction	3.9
		Selection & Deployment	3.3
		Support	2.8
		Evaluation	4.5
		Monitoring & Accountability	2.9
		Intrinsic Motivation	3.9
		Inputs & infrastructure	Standards
	Learners	Monitoring	3.1
		Nutrition Programs	3.9
		Health Programs	3.9
		Center based care	-3995
		Caregiver Financial Capacity	-3995
	School Management	Caregiver Skills Capacity	-3995
		Clarity of Functions	4.9
Attraction		4.3	
Selection & Deployment		3.9	
Politics	Politics & Bureaucratic Capacity	Support	3.7
		Evaluation	4.5
		Quality of Bureaucracy	3.9
		Impartial Decision-Making	3.3
		Mandates & Accountability	2.8
National Learning Goals		4.5	
	Financing	2.9	

Source: UIS, GLAD, GEPD, World Bank, Rwanda, 2020. For information on indicators, please consult the World Bank [GEPD](#), [GLAD](#) and [Learning Poverty](#) repositories.

Notes: (1) Proficiency on GEPD assessment means % students with knowledge > 80%. (2) Proficiency by end of primary uses threshold as per Minimum Proficiency Levels set by GAML(UIS). (3) All indicators are on a scale of 0-5 unless measured in %. (4) Green indicates indicator 'on-target', yellow indicates 'requires caution', red indicates 'needs improvement'.

Table 2. GEPD Indicators by gender, Rwanda, 2020

Subtitle	Indicator	Male	Female
Learning	Proficiency on GEPD Assessment	0.1%	0.2%
	Teacher Effort	79%	80%
Teaching	Content knowledge	28%	26%
	Pedagogical Skills	NA%	NA%
Learners	Capacity for Learning	52%	55%
	Student Attendance	82%	84%
	Operational Management	4	4
School Management	Instructional Leadership	3.4	3.4
	School Knowledge	4	4
	Management Practices	4.2	4.1

Table 3. GEPD Indicators by region, Rwanda, 2020

Subtitle	Indicator	Rural	Urban
Learning	Proficiency on GEPD Assessment	0.1%	0.8%
	Teacher Effort	79%	85%
Teaching	Content knowledge	24%	45%
	Pedagogical Skills	NA%	NA%
Inputs & infrastructure	Basic Inputs	3.2	3.8
	Basic Infrastructure	3.1	3.5
Learners	Capacity for Learning	52%	63%
	Student Attendance	86%	93%
	Operational Management	4	4.1
School Management	Instructional Leadership	3.4	3.4
	School Knowledge	3.9	4.5
	Management Practices	4.2	4

LEARNING OUTCOMES: 3.8 LEARNING ADJUSTED YEARS IN SCHOOL, 0.2% GEPD PROFICIENCY IN GRADE 4

Learning adjusted years of school (LAYS) is calculated by adjusting expected years of schooling for schooling quality. Learning adjusted years of schooling in Rwanda is 0.9 years lower than the average for Sub-Saharan Africa (excluding high income) region and 0.6 years lower than the average for Low income countries.

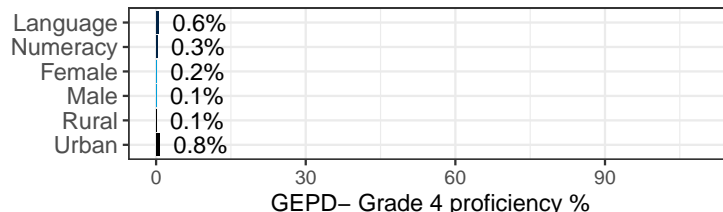
Figure 2. Learning adjusted years in school comparison



Notes: Grey circles represent other countries. Yellow circle represents Rwanda. Orange and blue circles represent average LAYS in Rwanda's region and income group.

GEPD grade 4 assessment proficiency is defined as % students scoring greater than 80/100 on student knowledge. Overall GEPD student proficiency in Rwanda is 0%. Student proficiency in language is 1 point higher in language compared to numeracy, 0.1 points lower for boys compared to girls, and 0.7 points higher in urban areas compared to rural areas.

Figure 3. Grade 4 proficiency, Rwanda



COMPARING DE-FACTO PRACTICES AND POLICY LEVERS

Practice indicators measure quality of service delivery in schools such as teacher and student attendance, teacher knowledge, principal management skills, etc. Policy lever indicators measure how well school, personnel and student policies governing these practices are implemented. For instance, teacher content knowledge (practice) is influenced by implementation of teacher hiring policies, teacher training and monitoring and accountability systems. Comparing de-facto practice and policy lever indicators allows identification of low-scoring policy levers that affect observed practice indicators.

Teacher effectiveness

Teacher effectiveness is determined by a teacher's own knowledge level, pedagogical skills and effort. These practices are impacted by quality of teaching support, teacher recruitment and deployment, level of teaching attraction (incentives/job satisfaction), teacher motivation and monitoring systems. Teacher content knowledge (27%) needs improvement. Teacher proficiency in language (20%) is 21 points lower than mathematics proficiency (41%). Teacher pedagogical skills score NA, and teacher attendance (87%) is on target. Teaching - Support policy lever scores the lowest (2.8/5).

Practice Indicators		Policy levers (Teaching)	
Content knowledge	27%	Attraction	3.9
Maths proficiency	41%	Selection & deployment	3.3
Language proficiency	20%		
Pedagogical skills	NA%	Support	2.8
% Classroom culture	NA%		
% Instruction practices	NA%	Evaluation	4.5
% Socio-emotional skills	NA%		
Teacher Attendance	87%	Monitoring & Accountability	2.9
		Intrinsic motivation	3.9

Notes: Content knowledge (& sub-indicators) indicate % teachers with knowledge > 80%. Pedagogical skills (& sub-indicators) indicate % teachers with proficiency 3/5 or above.

Capacity for learning in Grade 1

Early learning is affected by quality of implementation of health and nutrition programs, enrolment in early childhood education, quality of skills of educators and financial support provided to programs enabling early learning. Proficiency in Grade 1 (9%) needs improvement. Literacy score (38%) is the lowest knowledge sub-score. Student attendance (87%) is on target. Center-Based Care policy lever scores the lowest (-3995/5).

Practice Indicators		Policy levers(Learners)	
Capacity for learning	9%	Nutrition Programs	-2995.9
Numeracy score	62		
Literacy score	38	Health Programs	-2663
Executive score	47	Center based care	-3995
Socio-emotional score	67	Caregiver Skills Capacity	-3995
Student Attendance	87%	Caregiver Financial Capacity	-3995

Notes: Capacity for learning indicates % students with knowledge>80%. Sub-indicator scores refer to average subject knowledge on a 0-100 scale.

Inputs & Infrastructure

Quality of school inputs and infrastructure is affected by physical infrastructure standards set in policies, and strength of school monitoring systems. Basic inputs (3.3/5) are on target. Percent of classrooms with a functional blackboard and chalk(60)% is the lowest score. Basic infrastructure (3.1/5) requires caution. Percent of schools with access to internet(27)% is the lowest score. Inputs & Infrastructure - Monitoring policy lever scores the lowest(3.1/5).

Practice Indicators		Policy levers(Inputs)	
Basic inputs	3.3		
% Blackboard	60%	Inputs and infrastructure standards	4.5
% Stationery	92%		
% Furniture	99%		
% EdTech access	76%		
Basic infrastructure	3.1		
% Drinking water	74%	Inputs and infrastructure monitoring	3.1
% Functional toilet	57%		
% Internet	78%		
% Electricity	27%		
% Disability access	75%		

Notes: % refers to % schools with the given sub-component

School Management by principals

School management practices of principals are impacted by clarity in assignment of responsibilities and quality of support systems for school leaders, principal recruitment and deployment, incentives and evaluation systems. In school management, the lowest score is for principal's Instructional Leadership(3.4/5), whereas the highest score is obtained for Principal Management Skills(4.2/5). School Management- Support policy lever scores the lowest(3.7/5).

Practice Indicators		Policy levers(Management)	
Operational management	4		
Infrastructure	4.5		
Ensuring inputs	3.5		
Instructional Leadership	3.4	Clarity of functions	4.9
% Classroom observed	88%		
% Discussed observations	51%		
% Feedback given	70%		
% Lesson-plan feedback	44%		
Principal school knowledge	4	Attraction	4.3
% Teachers' knowledge	80%		
% Teachers' experience	99%	Selection & Deployment	3.9
% Input availability	77%		
Principal Management skills	4.2	Support	3.7
Problem solving score	4.2		
Goal-setting score	4.2	Evaluation	4.5

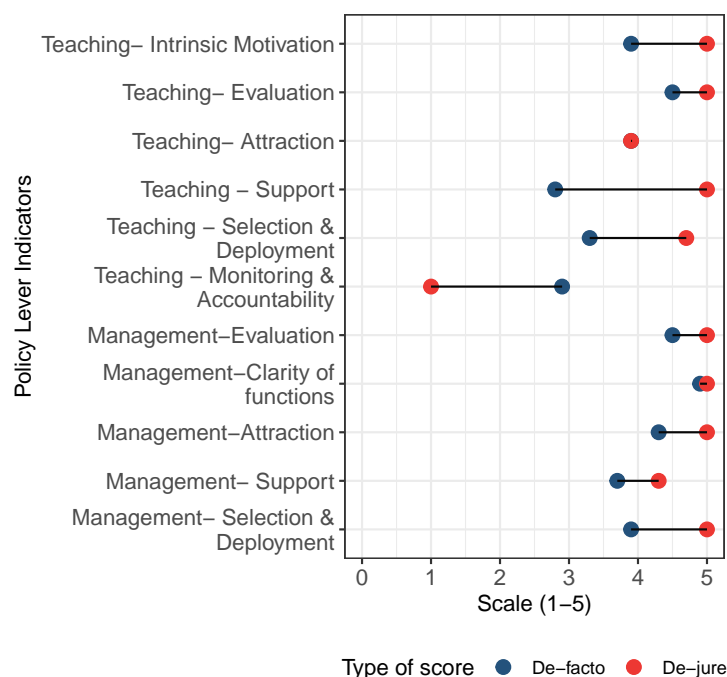
Notes: (1) Under instructional leadership, % refers to % teachers reporting in affirmative for the given sub-component. (2) Under principal school knowledge, % refers to % principals familiar with the given sub-component in the school.

GAPS BETWEEN DE-FACTO POLICY LEVERS AND DE-JURE POLICIES IN TEACHING AND SCHOOL MANAGEMENT

De-facto policy levers measure how well school, teacher and student policies are being implemented in the school system. GEPD also measures de-jure policy indicators which measure the strength and quality of the underlying student, teacher and school management policies. Analysis of the difference in these indicators shows gaps in implementation of education policies in schools.

A **~0.6 point average gap** exists between the de-facto policy levers and de-jure policies in Rwanda across teaching and school management, suggesting there are some gaps in policy implementation in teaching and school management. Smallest gaps suggesting good level of implementation are observed for Teaching - Monitoring & Accountability (-1.9 points), Teaching- Attraction (0 points) and Management-Clarity of functions (0.09999999999999996 points).

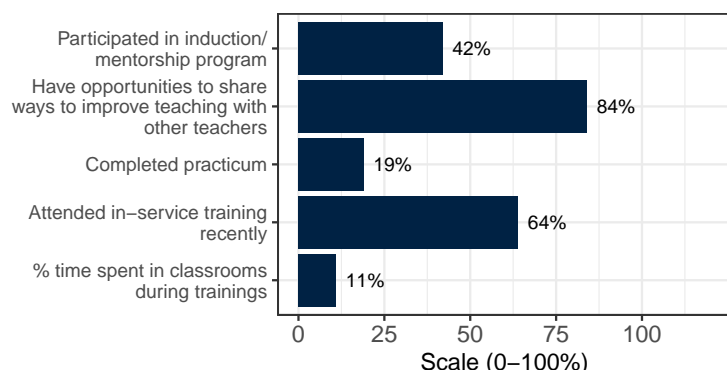
Figure 4. De-facto and de-jure indicators for policy levers, Rwanda



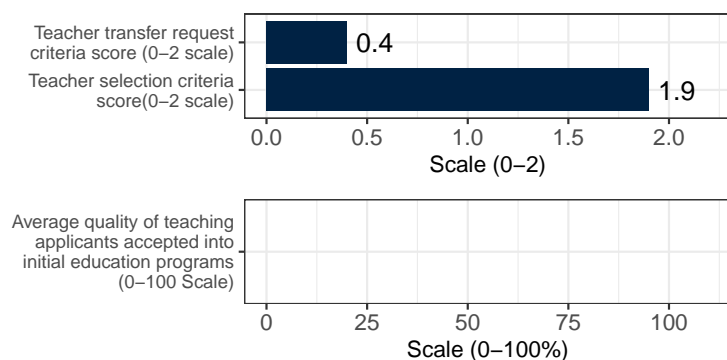
Note: De-facto indicators are observed in practice, de-jure indicators are set in policy

AREAS IN TEACHING AND SCHOOL MANAGEMENT WITH HIGHEST GAPS IN DE-FACTO POLICY LEVERS AND DE-JURE POLICIES

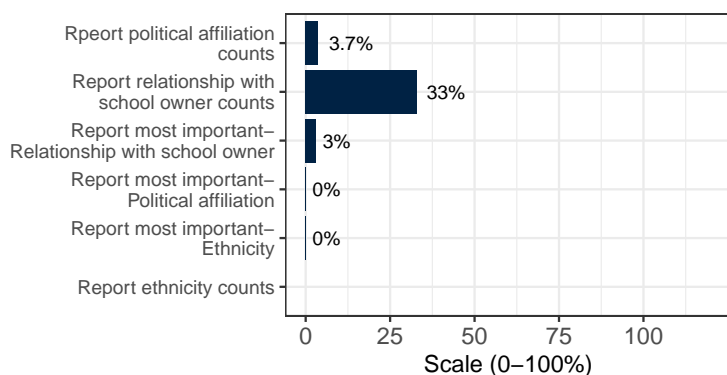
Largest gaps indicating a mismatch in policy design and policy implementation in schools are observed for Teaching - Support (2.2 points), Teaching - Selection & Deployment (1.4 points), Management- Selection & Deployment (1.1 points). The breakdown of sub-indicators within these de-facto policy levers show the specific areas where scores are the lowest, contributing to the gap observed in policy implementation.

Figure 5: Sub-indicators of Teaching - Support

Notes: Percent of teachers reporting in affirmative unless stated otherwise

Figure 6: Sub-indicators of Teaching - Selection & Deployment

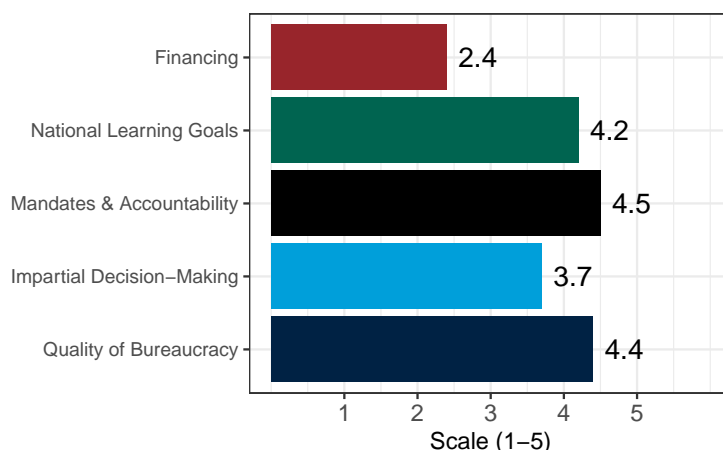
Notes: Average quality of applicants is based on benchmarking secondary exit exams performance of teachers.

Figure 7: Sub-indicators of Management- Selection & Deployment

Notes: Percent of principals reporting which factors count in principal selection, or are most important in principal selection.

POLITICS & BUREAUCRATIC CAPACITY INDICATORS

Politics and bureaucratic capacity indicators measure the capacity and orientation of the bureaucracy, as well as political factors affecting education outcomes. The highest score in politics and bureaucratic capacity is noted for Mandates & Accountability (4.5/5), and the lowest score is noted for Financing (2.4/5).

Figure 8. Politics and bureaucratic capacity indicators, Rwanda**Table 4. Politics and bureaucratic capacity sub-indicators, Rwanda**

Indicator	Sub-indicator	Value
Quality of bureaucracy (1-5)	Knowledge and skills	4.9
	Work environment	4.3
	Merit	4.2
	Motivation and attitudes	4.4
Impartial decision making (1-5)	Politicized personnel management	3.8
	Politicized policy-making	3.8
	Politicized policy implementation	3.1
	Employee unions as facilitators	4.7
Mandates and accountability (1-5)	Coherence	4.1
	Transparency	4.5
	Public official accountability	4.8
National learning goals (1-5)	Targeting	4.8
	Monitoring	4.3
	Incentives	3.8
	Community engagement	4
Financing (Scale 0-1)	Per child spending adequacy	0
	Public expenditure and financial accountability efficiency	0.6
	Financing and efficiency outcome	0.8
	Equity	-999

Notes: Financing sub-indicators are on a 0-1 scale, the other sub-indicators are on 0-5 scale.

Disclaimer: GEPD numbers presented in this brief are based on multiple sources including GEPD instruments, UIS, GLAD and Learning Poverty indicators. For that reason, the numbers discussed here may be different from official statistics reported by governments and national offices of statistics. Such differences are due to the different purposes of the statistics, which can be for global comparison or to meet national definitions.