Policy Suggestions and Concluding Remarks

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Abstract In this concluding chapter, we summarize the main findings and offer policy suggestions. As the outcome of inadequate learning goes hand in hand with the poor quality of teaching, policy interventions have to embrace programs that radically address the problem. Marginal policies by themselves are unlikely to be sufficient but can be combined with intensive programs aimed at reversing the inadequate learning outcomes. Identifying successful programs is likely to require an involved search process of trying different approaches and scaling up what works best.

Keywords Policy suggestions · Learning outcomes · Teacher competence · Iterative intervention design

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5.1   Summary of Main Findings

In the course of this book, evidence was presented on the state of learning by primary school students in Togo. We made use of several data sets, both administrative and survey microdata. Irrespective of the source used, the available data suggest that the abolishment of school fees improved access considerably, particularly in the first year. In 2008/2009 enrollment in public schools increased by some 30%, an increase that had significant equalizing effects in that many more relatively disadvantaged children, girls, those from poorer households, those living in rural areas, or those living in the far north, ended up going to school.

While the achievements in terms of school access and inequality reduction are noteworthy, learning outcomes are unequivocally poor. The majority of students do not perform adequately when tested on math or French. Just to illustrate how bad the situation is, only 53% of students in grade four know how to order six random numbers under 1000. In the absence of such basic knowledge, it seems plausible that an entire generation of children may grow into adults who participate in the labor market and in civil society, without being equipped with even the most rudimentary academic skills.

Another way to highlight the depth of the learning crisis is by considering performance at the level of schools. We do so in Fig. 5.1, which shows the percent of schools in which at least 70% of answers were given correctly on a grade-specific math test. As the graph shows, most schools have zero students who get 70% correct answers. In only 3% of the schools is more than half of students able to get at least a score of 70%. In other words, almost all schools fail their students entirely.

These results are particularly dramatic considering that spending on education increased significantly. Expressed as fraction of GDP spending on education almost doubled from 1.3% of GDP in 2006 to 2.4% in 2015; expressed on a per-student basis spending went up from FCFA 24,000 in 2006 to FCFA 43,000 in 2015. It suggests that the investments government is making in public education is a poor one, something that many parents seem to have realized. Because, despite public primary education having become free and available for all, the fraction of children opting to go to nonpublic schools has remained unequivocally high: around 30%.

In an effort to explore pathways toward improving learning outcomes, this book explored correlates of learning outcomes. We found that
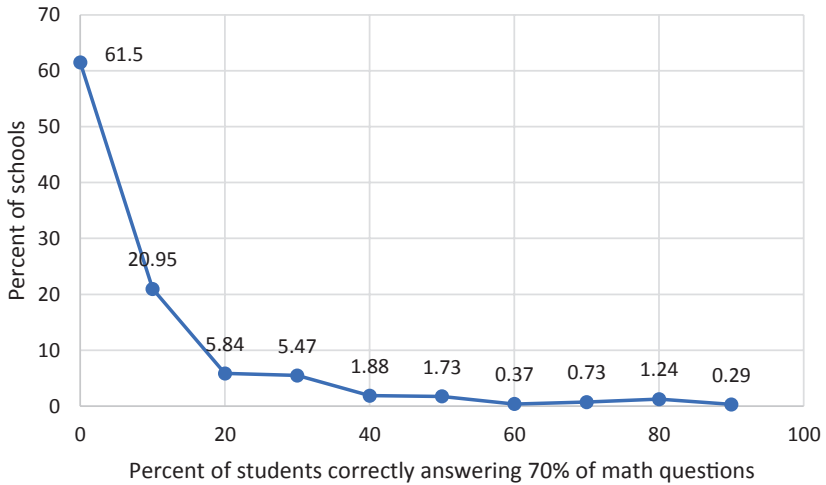
Fig. 5.1 Percent schools by percent of students that answers at least 70% of math questions correctly (*Source* Authors' calculations using SDI data)

certain policies are likely to improve outcomes at the margin: a better balancing of teachers and scholastic inputs across schools would reduce inequalities and improve efficiency and performance; stimulating involvement of parents in the school could enhance the motivation of students and teachers. One noteworthy finding is that private schools perform better than public ones, a performance that helps explain why so many parents opt to send their children to nonpublic (religious or laic) schools. The better performance of private schools remained even after controlling for the (slightly) higher quality of teachers engaged in private schools.[1] In other words, there are other factors, in addition to better-trained teachers, that make students in private schools perform better. We suggest that a combination of selection effects rooted in higher motivation and more capable students are plausible reasons for explaining these results. Parents who pay for a private education of their children are more likely to motivate their children, and their children's teachers, to perform. This effect is corroborated by the fact that the parents

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[1] Note though that while private schools perform better, their learning outcomes tend to be below the threshold, but only less so than public schools.
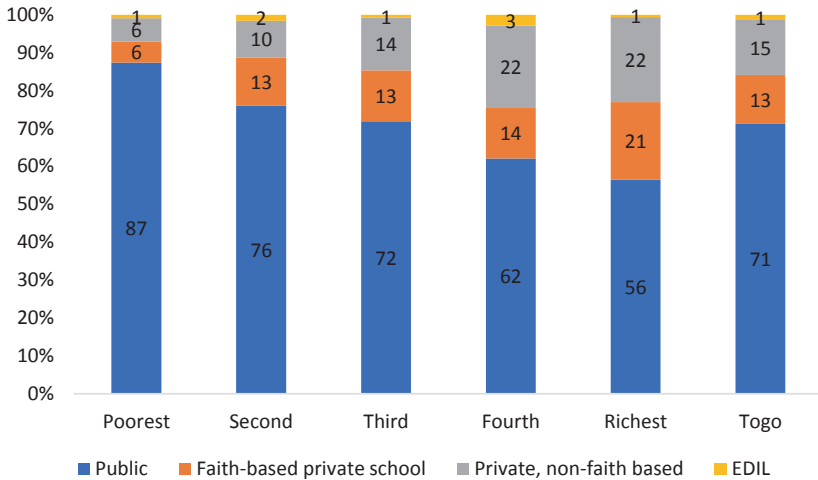
Fig. 5.2 School attendance by socioeconomic status (*Source* Authors' calculations using the 2015 QUIBB survey)

themselves—having the resources to pay for private education have a higher socioeconomic status (Fig. 5.2)—, are likely to be better educated themselves and may be more motivated to assist their children in the learning process, by offering an intellectually stimulating home environment and by engaging with their children in homework.

Schools clearly can benefit from a greater availability of inputs and Chapter 3 showed that this is likely to improve performance. Yet the root problem of poor learning outcomes has less to do with whether students go to a public or private school, or the availability of scholastic inputs (though they matter), and more with the quality of teaching. Teachers' knowledge is astonishingly low. Just to illustrate, only one in seven teachers is able to answer 70% of (grade 5) math or French questions correctly. In schools with the highest percentage of high-performance teachers, one in three teachers is able to do so. The quality of teaching is further affected by the reliance on assistant and temporary teachers (60% of the staff complement in public schools) and teacher absenteeism, which is astonishingly high. Absenteeism is highly correlated with being an assistant or temporary voluntary teacher, suggesting a relation with inadequate levels of pay. Indeed, the impossibility to recruit teachers of

good quality and resorting to cheaper fixes seems to be one of the drivers of poor learning outcomes.

Adding a temporal lens to our reasoning, it is worth recalling that Togo did not always have a learning crisis (see Fig. 2.7) and that the crisis dates from before the abolishment of school fees. The learning crisis emerged in 2010 when PASEC tests scores showed a massive decline relative to those of a decade earlier. The majority of students in 2000 showed a satisfactory level of learning (around 70% of them in math in their fifth grade), while this percentage drops to 46% in 2010 and remains stable at that level thereafter. The decline cannot be attributed (solely) to the expansion of the school system, though, because students in grade 5 who had started their education career before free primary education was introduced also show a decline in learning similar to those in grade 2, who started after free primary education was introduced.

As the education system has been affected by multiple shocks, including the prolonged economic crisis, the large influx of additional students and the incorporation of EDIL schools into the public school system, it is difficult to assess whether teachers' knowledge declined because of adverse selection (the best teachers left), because unqualified teachers entered the system, or because increasing workload, and low pay, undermined teacher motivation. Irrespective of the cause, it is safe to conclude a massive effort is needed to (re)train teachers. Additional actions can be taken to improve learning, but these are likely to only improve outcomes at the margin: a better balancing of teachers and scholastic inputs across schools; stimulating parental involvement; reducing absenteeism and improving supervision.

**Box 5.1 Community participation and school performance**

Unsurprisingly given the high-value Togolese citizens attach to education, community participation at primary school level is almost universal, though the degree at which communities are active varies. Parents' associations and school management committee activities are mostly related to procurement and financial management (including bidding, supervision of works, reception and distribution of scholastic material, hiring of teachers, etc.) and less to monitoring school performance. Community participation has proven to be effective at reducing the costs of acquisitions, and a greater involvement of communities in monitoring school performance could be a catalyst

for improved education outcomes. This is explored in Togo by the Data Must Speak initiative cofunded by the Global Partnership for Education, Hewlett Foundation and the UNICEF Thematic Fund for education.

Initial findings suggest that schools with higher community participation have a better health and nutrition environment (latrines, first aid kit, hand washing station, school canteen, nutrients distribution), more facilities (water, electricity, playground) and better learning conditions (textbooks, seats). Beyond the health/nutrition environment and learning conditions, community participation is also associated with more pedagogic activities, including teaching staff meetings and pedagogic support. This despite the fact that school management committees are not formally empowered to monitor school performance.

With respect to school performance, there are indications suggesting that higher community participation is associated with lower dropout rates and higher pass rates at the end of primary school national exam, even after controlling for the positive influence of a better endowed school on performance—echoing findings presented in Chapter 4.

Community participation can have an indirect (through improved health/nutrition and learning environment) as well as a direct effect on school performance
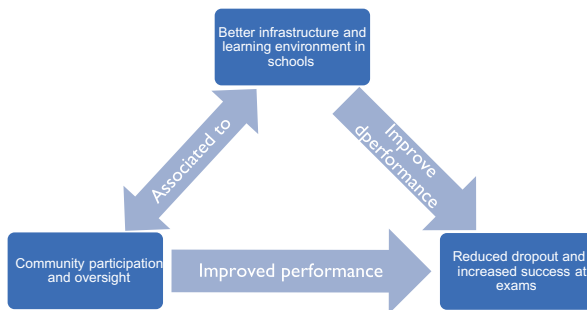
Source Personal communications data must speak initiative

5.2   WHAT CAN BE DONE?

How can learning be improved? Even when there is agreement that a massive effort is needed to improve the quality of teaching, it is not immediately evident how to go about it. An important aspect is the realization that there is a stock and a flow problem. The stock problem refers to the existing cohort of teachers whose skills and teaching methods need to be upgraded. The flow problem refers to future teachers who have not yet entered the profession. Addressing the learning challenge requires different approaches for each group: the first group requires upgrading of their current skills, whereas the second group requires higher quality at entry in the profession. For this last group, it is somewhat simpler to envisage what is needed: greater selection at entry at teacher colleges and quality improvements of what is being taught at these colleges. This is not to suggest that the task is trivial. Higher quality individuals will need to be attracted to teacher colleges, with better salaries and better conditions, changes that will have major fiscal consequences. Then even if you are able to attract people with better qualifications and who are motivated to become teachers, they need to be equipped with proper pedagogical skills, requiring a retooling of existing teacher training institutes.

More challenging, however, is how to improve the quality of teaching by the existing cohort of teachers. Given the poor performance of these teachers on the learning tests, improving their skills is likely to be an important part of the challenge. But how to upgrade the skills of 25,000 teachers in the public school system (and 13,000 additional teachers in the nonpublic system), in ways that do not disrupt the school year and which are affordable? Many approaches can be envisaged. Just to mention a few: One could decide to invest in teacher cascade training. In the context of sub-Saharan Africa where limited resources often hinder efforts to improve teacher quality, cascade training is often seen as a preferred model of professional development for teachers. A cascade approach entails central training of a group of teachers as change agents who will pass on their new knowledge by training a large number of additional teachers. A cascade approach could be combined with regular teacher evaluations which are used to identify which teachers are most in need of retraining. Retraining could then focus on the bottom 10 or 20 percent (those who should not be in front of children teaching), while those who don't improve during the retraining program could be

dismissed and replaced with higher quality, better trained teachers from the (retooled) teacher colleges.

Another approach could be the introduction of scripted instruction. This approach refers to teaching programs that have highly structured lessons, often with specific time allotments for teaching specific skills, and often word-for-word scripts of what the teacher is to say. Scripted instruction is advocated for schools where teachers have had inadequate teacher training and can be considered a way to standardize the quality of instruction. Critics say that such programs stifle teachers' creativity, undermine teachers' expertise, and fail to provide for the diverse needs of many classrooms. Advocates see it as the easiest way to provide teachers with the essential elements of effective reading instruction.

A fourth approach could be to introduce e-learning approaches, such as the flipped classroom concept. This is an approach that turns traditional teaching upside down. Instead of introducing concepts in class (by an under-skilled teacher) and then sending students off to do homework, students watch online or on preloaded tablet lessons prepared by expert teachers who introduce them to key concepts. Then students then use class time to tackle complex questions, working in small groups and under the supervision of their teacher.

All these approaches could help improve teaching in Togo, as could many other approaches including some which have been discussed in this book such as enhanced parental engagement, or a more equitable distribution of resources. Approaches could also be tried in combination. A cascade training can improve teacher skills and prepare them to use scripted lessons in their classroom. Scripted lessons can be combined with flipped classroom concepts. Flipped classroom approaches may be more suited for urban areas, where access to electricity (and the internet if this is needed) is more readily available, while scripted lessons may be more suited for rural areas.

The key point we'd like to emphasize is that it is not obvious from the outset which approach is most suited. Even impact evaluations, while essential in identifying the most promising approaches, are unlikely to give the necessary guidance as few will have been done in settings relevant to Togo. So, adopting one approach at the exclusion of others seems unnecessarily limiting. Why not start agnostically by agreeing that change leading to improved learning in the classroom is urgently needed while acknowledging that it is not evident what exactly needs to be

changed. Next one could create an environment in which a systematic search for solutions is supported.

Such an approach would fall under what Andrews et al. (2012) call Problem Driven Iterative Adaptation or PDIA. They define four critical elements for approaches seeking solutions to complex problems, of which limited learning is one. These are:

1. aim to solve particular *problems* (learning in this instance) relevant to local contexts via
2. the creation of an environment that encourages experimentation and positive deviance, which gives rise to
3. active, ongoing and experiential (and experimental) learning and iterative feedback, doing so by
4. engaging broad sets of agents to ensure that solutions are viable, legitimate and relevant.

PDIA starts by asking—what is the problem, as opposed to defining the solution that should be adopted (step 1). Next teachers and head-masters but also parents or school inspectors should be given the space to define their own approaches and solutions (step 2). These will often entail adaptations to solutions that exist already, which is sensible given that local agents have a unique understanding of the problems at hand. Solutions are likely to be attained through incremental steps as few people are likely to get it right the first time. Muddling through needs to be accepted as part of the search process. It implies taking a gradual approach to addressing complex problems. Experimentation plausibly has its greatest impact when connected with learning mechanisms (step 3). These ensure the dynamic collection and immediate feedback of lessons about what works and why. Active learning through real-world experimentation allows reformers to learn a lot from the small step interventions they pursue to address problems (or causes of problems). They learn, for instance, about contextual constraints to change in general, how specific interventions work (or not), and how these interventions interact with other potential solutions. Finally (step 4), in order to translate workable solutions into permanent change in the system, broad sets of actors need to be engaged. The engagement is preferably to start from the beginning, as this creates a broad platform of people supporting the new approach, including parents, teachers, headmasters, school inspectors, etc.:
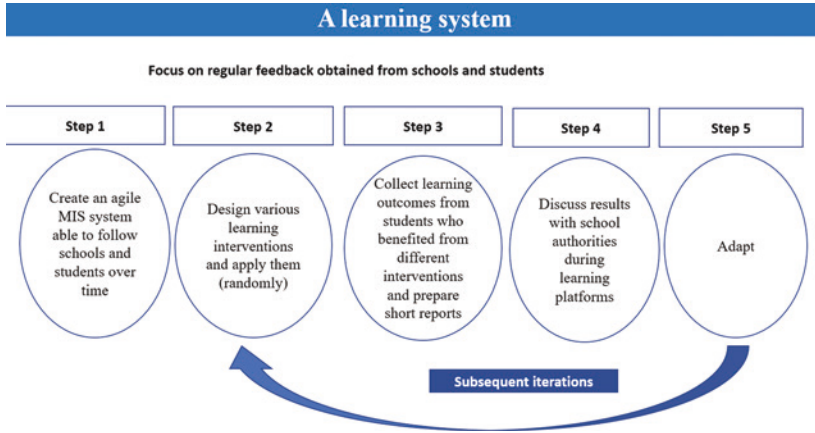
Togo is uniquely placed to adopt a PDIA approach to improve the pedagogical skills of the current as well as the future cohort of teachers. Togo's citizens and authorities have demonstrated to greatly care about education, investing significant private and public resources to ensure their students succeed. Togo's education system used to be a decent performer, suggesting that there exists institutional memory that can be tapped. Moreover, the education management information system in Togo is well developed and with adaptations suited to assess the impact of different experimental approaches. The management information system could also be complemented with other learning tools, such as Iterative Beneficiary Monitoring, which are light, cost-effective and have demonstrated to enhance learning by creating effective feedback loops.[2] And finally, Togo is at the sweet spot between not being too big to make experimentation a daunting task and being too small not to be able to do any real experimentation. With almost 5000 public schools, it pays to let different schools propose different approaches and experiment with them. Let some send their teachers to receive additional training; let others introduce scripted lessons; let a third group flip their classroom; let other schools propose their own innovations: more involvement by parents; classroom supervision by headmasters; school feeding;

a combination of teacher training and scripted lessons. Finally, do nothing in the nth group. Now let the system run for some time, maybe 2 years, maybe less, and analyze the results using quick tests and monitoring feedback. Use this to find the most promising innovation and repeat, now introducing variations of this innovation.

Reference

Andrews, Matt, Lant Pritchett, and Michael Woolcock. 2012. Escaping Capability Traps Through Problem Driven Iterative Adaptation (PDIA), CID Working Paper No. 240, June 2012.