



PULTE INSTITUTE
FOR GLOBAL DEVELOPMENT

ASSESSMENT-DRIVEN EDUCATION REFORM AS A PATH TO INSTRUCTIONAL QUALITY: Lessons from Uganda

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OVERVIEW

High stakes testing in Uganda and many African countries exerts a powerful influence on behavior, shaping both what is taught and how it is taught (Kellaghan & Greaney, 2004; Snyder, 1997). The result is that: "In practice, little priority is given in classrooms to matters that are not closely aligned to the demands of examinations" (Allen, Outhred, and Varly 2016, p. ii). The low rigor of examination questions, in turn, limits the cognitive quality of instruction and focuses both teaching and testing on skills like recall and memorization. However, some scholars argue that examination reform can be used to drive educational quality in systems by motivating teachers to shift their methods to meet higher learning standards on exams (Ahmad & Rao, 2012; Chapman and Snyder, 2000; Mitana, 2019a/b; Spratt, 2005).

Research has affirmed that assessment driven reform is precarious but possible (Elmore & Fuhrman, 2001). This combination of raising rigor using fewer and deeper standards that focus on higher order thinking (HOT) skills, when paired with a major emphasis on strengthening instructional quality to effectively teach those skills, appears to have been successful in many of the top performing and most-improved education systems globally (Schleicher, 2018).

But to what extent has this approach been successful in lower-income contexts like sub-Saharan Africa? It appears that the evidence is quite mixed. Changes in examination content have been demonstrated to consistently and effectively shift the content of what is taught (Eisemon, 1990; Kellaghan & Greaney, 2004; Madaus & Kellaghan, 1992), however, the evidence is inconclusive and mixed as to the efficacy of exam reform in shifting how that content is taught and improving students' higher order thinking skills (Eisemon, Patel, & Abagi, 1988; Kellaghan & Greaney, 2004; Rollnick et al., 1998).

What are the keys to successful examination-driven reform in African countries such that it leads to strengthened higher order thinking skills in education systems?

This brief draws upon research and an illustrative case study from Uganda to offer a framework for effective examination-driven reform. The case focuses on the activities of a set of partners in Uganda including: an institute of higher education in Uganda called Luigi Giussani Institute of Higher Education (LGIHE) and two parts of the Ugandan Ministry of Education, the Uganda National Exam Board (UNEB), which is responsible for administering national examinations in the country, and the Teacher Instructional Education Training (TIET) division of the Ministry, which oversees teacher education and training. These and other organizations collaborated to advance reforms in the Ugandan education system aimed at increasing the measurement of higher order thinking (HOT) skills in the examinations and the effective teaching of these skills in Ugandan classrooms.

This brief shares a set of key findings from a qualitative case study of the partnership and reform efforts and presents a proposed model for a theory of improvement for effective examination-driven reform in Africa and beyond.

ASSESSMENT-DRIVEN EDUCATION REFORM IN AFRICA AND UGANDA

What do we know about the keys to successful examination reform in Africa? This literature is quite limited but suggests that a few key issues appear to be particularly important:

- Teacher capacity and preparation are essential,
- Resource constraints pose a challenge, and
- The social and political meaning of examinations make changing them difficult and unpredictable (Snyder, 1997).

First, the limited research on examination reform in Africa affirms that teacher quality and preparedness are key factors. Where reforms have been more successful, teachers are effectively prepared for the changes and well-informed about the reforms (Kellaghan & Greaney, 2004; Snyder, 1997). Where reforms have failed, adequate preparation and support for teachers appears to have been a fatal gap (Snyder, 1997). However, this focus on teacher information and capacity strengthening is constrained by resource scarcity typical in the context.

Additionally, examination reform is politically fraught, complex, and unpredictable (Snyder, 1997). In a case study of end of cycle examination reform in Uganda in the late 1990s, Snyder (1997) observes that the reforms failed due to widespread political opposition from parents and teachers. Chapman and Snyder (2000) underscore that those who often have the most to gain from improvements in assessment - parents and teachers - are often those most strongly opposed to change.

A WORKING THEORY OF IMPROVEMENT

Unlike a theory of change, a working theory of improvement is aware of the complexity within systems and regards the theory of improvement as iterative and a work in progress (Bryk et al., 2015). Efforts are made to “see the system” as it currently exists and identify and test key change drivers.

For the actors in the case study presented, the ultimate aim is to improve students’ mastery of higher order thinking (HOT) skills throughout the Ugandan education system. This is to be accomplished through two primary change drivers:

- Examination reforms will motivate stakeholders (teachers, leaders, students, and parents) to teach/ learn HOT skills to perform better on exams, and
- Improvements in teacher preparation, will enhance stakeholder (e.g. teacher, leader) knowledge and ability to teach HOT skills, leading to a change in instructional practices.

The examination reform aspect of the theory of improvement is dependent on two main factors, political consensus for change and the degree to which HOT skills are evaluated effectively on exams. Since various factors within the system had already produced a strong political consensus for curriculum and assessment reform in Uganda, in line with a push for more higher order thinking skills, the immediate focus for action

became specialized capacity building within UNEB. Many aspects of the current system with respect to teaching and measuring HOT skills were not well understood. To what extent did exams measure HOT skills? How did students perform on test items that measured HOT skills? Did exam writers know how to write HOT test items? Did teachers know how to teach these skills? As such, the partnership between UNEB and LGIHE focused on three things: 1) conducting a study of HOT skills on the exams, including student performance by HOT and LOT skills, and teacher understanding of HOT skills; 2) taking steps to build UNEB and examiner capacity for the evaluation and design of HOT skill items, and 3) supporting UNEB in shifting their practice to item-level analysis to be able to measure progress in these areas over time.

In terms of the second primary change driver related to teacher education and teacher preparation, there were three key factors pertinent to improving teacher capacity: 1) consensus regarding the need for teacher education reform, 2) the enhancement and alignment of the teacher education system to the teaching of HOT skills, and 3) current/new teachers being informed and prepared to teach HOT skills. As with political support for examination reform, teacher education reform plans were already in place and enjoyed political support to ensure alignment with curricular reform within the system.

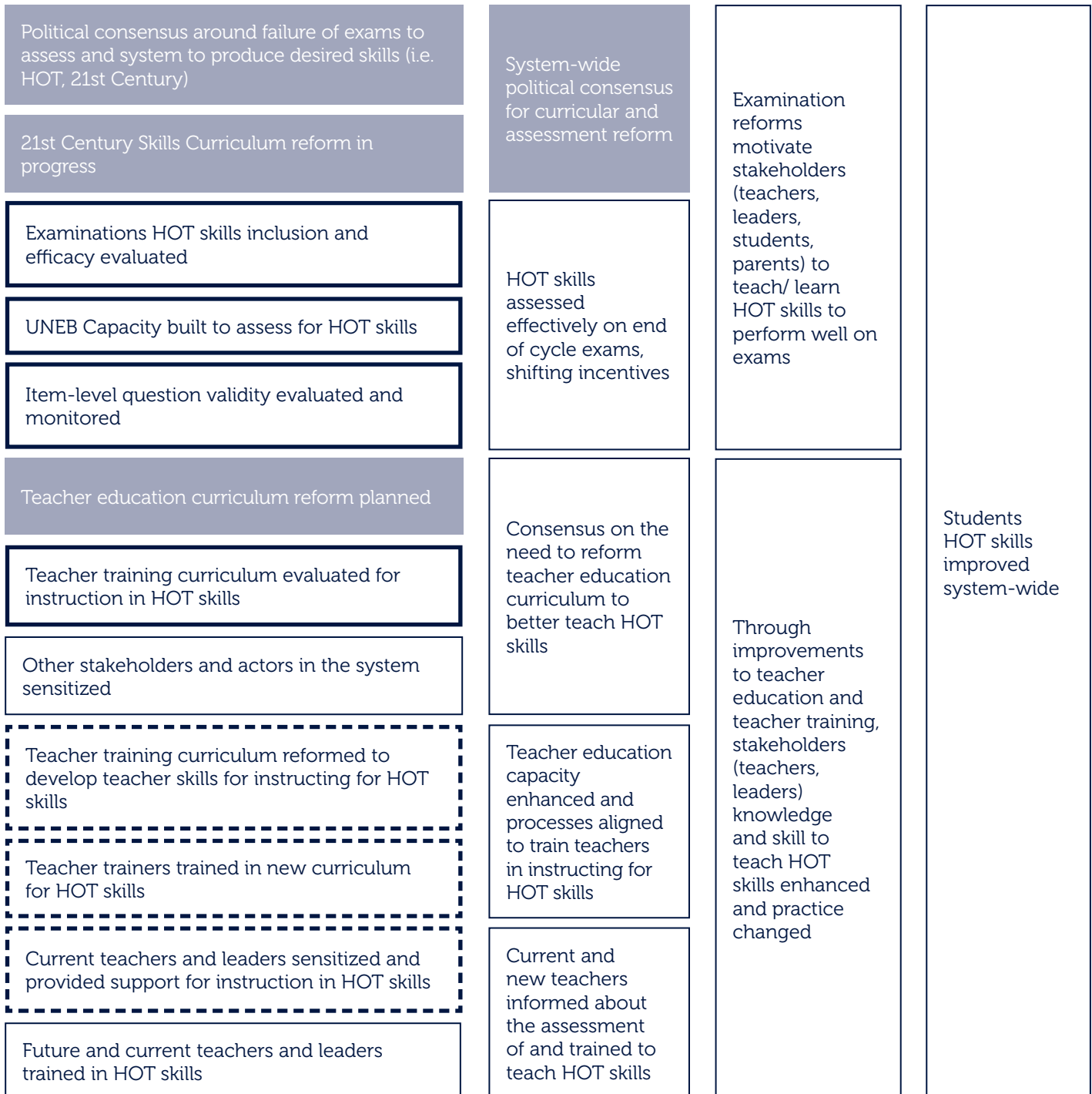
As a first step to reforming the teacher education system, a partnership between LGIHE and TIET supported an evaluation of the teacher education curriculum in all teacher training institutions and the capacity of teacher educators to effectively prepare teachers to instruct for HOT skills. Efforts are now underway to reform the teacher education curriculum based upon the findings of the assessment, and to strengthen the capacity of teacher educators to effectively deliver the revised curriculum and ensure new teachers are prepared to teach HOT skills. Eventually, this increased capacity and revised curriculum is intended to ensure that new teachers entering the system have greater training in and knowledge of how to instruct for HOT skills.

Two remaining issues are pertinent: 1) awareness of the political sensitivity and unpredictability of examination reform suggests the benefits of wider sensitization efforts with other key stakeholders and influential bodies within the system (e.g. teachers' unions); and 2) the need to adequately communicate with and prepare current teachers and school leaders to be capable of teaching HOT skills as the examination reforms are implemented. Plans and dialogue are ongoing about the most effective means of accomplishing these key changes.



THEORY OF IMPROVEMENT: ASSESSMENT-DRIVEN REFORM

- Shaded boxes represent key shifts already occurring in the context.
- Dark outlined boxes show key strategies deployed to date by LGIHE; dashed boxes represent emerging shifts or projects underway.



ASSESSMENT-DRIVEN REFORM SYSTEMIGRAM

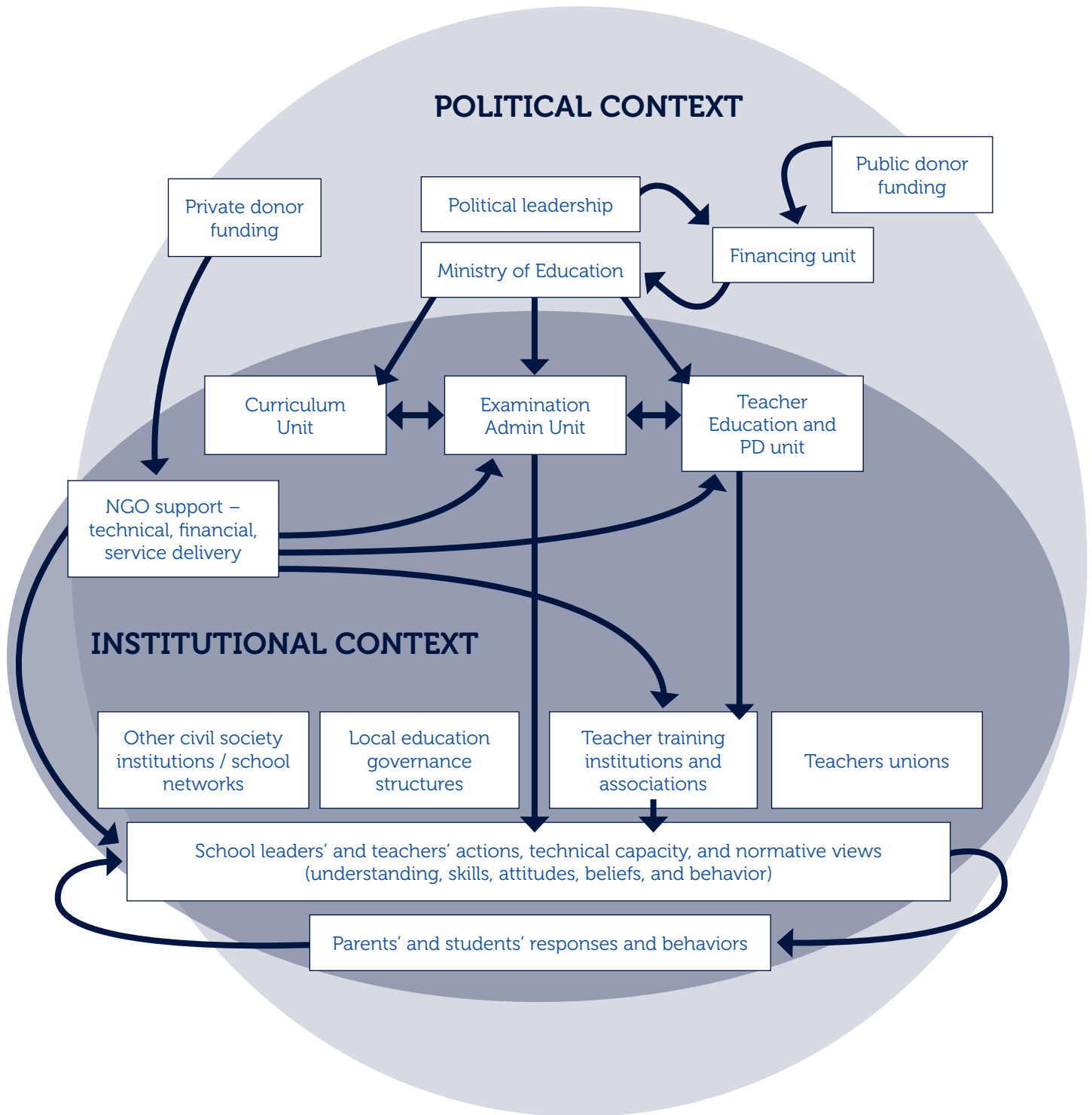
Given the complexity of the change process, it can be helpful to map the various actors within the system and their roles in seeking to effect change. The actors within the system are situated within both broader political and institutional contexts. The political context includes the commitments of political leaders to the reforms and the degree to which these reform efforts are supported by public opinion and by key stakeholders. The institutional context pertains to the organizations in the education sector engaged in and implicated by the reform efforts.

The diagram (on the following page) illustrates the central role of the Ministry of Education, where national and central leadership commitment to the reforms involves the work of a number of major units within the Ministry of Education, namely: UNEB, TIET, and the National Curriculum Development Center (NCDC). In addition to taking direction from the Ministry leadership, there is the necessity for cross-unit collaboration and alignment. Moreover, the capacity of these units to accomplish their roles within the reform process are related in part to financial decision-making and budgeting allocations within government, which is ultimately linked to political leadership and support from public donor institutions and is reflected in solid-colored arrows between these institutions.

In addition to national government leadership, other non-public organizational actors in the institutional context are playing a meaningful role in reform and support. This includes local non-governmental or higher educational organizations providing technical support to ministry units for the reforms (e.g. LGIHE collaborations with TIET and UNEB). These organizations, in turn, are supported by either private philanthropic institutions or bi-lateral donors. NGO support flows to both government units in the form of technical and financial assistance to support joint projects, as well as training or technical assistance provided to teacher training institutions and directly to teachers via in-service training. Government units also provided support to both teacher education institutions and directly to teachers and school leaders as part of implementing changes like communicating changes to examinations or providing guidance and training on teacher education curriculum reforms. Finally, there is a dynamic and interactive relationship between educators and school personnel and parents and students. Educators are the front-line workers intended to implement the reformed curriculum and instructional practices in their efforts to prepare students to achieve the desired skills measured on the reformed national examinations. However, in addition to being on the receiving end of these changes in exam expectations and anticipated changes in curricular content and instructional practices, parents and students also inform and influence the degree to which and in what ways these activities can occur by their participation, financial contributions, and acceptance or resistance to change.

The evidence collected in this case study, which interviewed a limited set of actors within the system and reviewed a limited set of documents, does not provide information on the level and quality of engagements in other parts of the system, such as the range of civil society actors (e.g. faith-based networks, teachers unions) and regional ministry units, that are important stakeholders within the system and whose engagement, roles, and interactions within the system will be important to consider and more fully understand to accurately depict the system and the optimal means of intervening to improve its performance according to the desired aims. Additional inquiry would be required with a range of stakeholders to provide a more complete picture of the system and reform dynamics.

ASSESSMENT-DRIVEN REFORM SYSTEMIGRAM



CONCLUSION

There are notable strengths to the approach that has been undertaken to date in this case study of assessment-driven reform which relies on strong partnerships and a working theory of improvement. It enjoys strong political support, it is attentive to multi-faceted elements of the system, and it has placed an appropriate emphasis on teacher capacity development. Each of these facets are noteworthy improvements over past attempts to pursue such reforms in the Ugandan context and appear to be on their way to addressing the critical change-levers and points of fragility in the system for such reforms to be successful.

Strong, mutual, long-term partnerships and support mechanisms grounded in trust and positive, respectful relationships appear to be a vital asset. Similarly, adopting incremental and systematic change processes geared towards learning and continuous improvement over the long-term is also a valuable approach and is likely to avoid some typical implementation failures.

Nonetheless, there remains outstanding questions in these same areas: teacher capacity and political legitimacy. Behavior change is difficult and the resources to support the necessary capacity building are limited. What are the most effective and efficient delivery mechanisms of training, knowledge diffusion, teacher support, and ongoing system monitoring? Which actors and levels of the system are best placed to complete this work? How quickly or incrementally should changes be rolled-out, considering both the desire to seize political momentum and not wanting to scale too fast for the system to adjust? Also, as has been noted previously, the political situation is complex, opaque, and dynamic. How durable is the current political support and what are the key factors in its maintenance over time? Which stakeholder groups are vital for engagement and what are the key incentives and interests to which they will respond? What are the most effective means of ensuring – in particular – continued teacher and parental support for the reforms?

The strategies that have been implemented to date provide a promising foundation for systemic change capable of producing far reaching and deep changes within the Ugandan education system. Moreover, the strategies employed are in line with those of other educational system success stories. This case study provides a working hypothesis of how an education system in a low-income country can compress the timeline of systemic change and improvement, moving quickly from universal access, to improving basic skills, to raising the bar on rigor and higher order thinking skills. This is the sort of ambitious, high-stakes reform that could lead to narrowing gaps in educational outcomes internationally. Yet, it is also the kind of reform that is notoriously difficult to execute. For this reason, structures, organizations, strategies, and processes that support implementation are crucial. Strong, mutual, long-term partnerships and support mechanisms grounded in trust and positive, respectful relationships appear to be a vital asset. Similarly, adopting incremental and systematic change processes geared towards learning and continuous improvement over the long-term is also a valuable approach and is likely to avoid some typical implementation failures. Much will depend on the next steps and the continued support of a stable and growing coalition of capable leaders, committed partners, and adequate and thoughtfully deployed resources to advance effective implementation.

Visit pulte.nd.edu/pipb2-sources for a full list of sources used to write this policy brief.

POLICY BRIEF TEAM



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Echidna Giving is a private funder focused on supporting the best ways to educate girls, working in lower-income countries to create a positive ripple effect in their families, communities and nations.



Luigi Giussani Institute of Higher Education (LGIHE) is an innovative learning space that seeks to address crucial educational deficiencies of quality, school management, accountability and teaching efficiency within Uganda's context.



AVSI-USA works with people in developing countries to promote dignity and build resilience in the face of poverty and marginalization. LGIHE and AVSI-USA are members of AVSI Foundation, a global network organization which supports human development in over 30 countries.

The analyses, interpretations, conclusions, and views expressed in this policy brief are those of the author and do not necessarily represent the Luigi Giussani Institute of Higher Education or collaborating organizations or funders.

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