UNLOCKING DATA

POLICY BRIEF

UNLOCKING THE POWER OF FOUNDATIONAL LEARNING DATA IN MALAWI: STRENGTHENING DATA USE AND KNOWLEDGE GENERATION FOR POLICY IMPACT

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Notes

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Reviewers

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About the Unlocking Data Initiative

The Unlocking Data Initiative is a community of practice that connects African scholars, NGOs, national statistics offices and policymakers for the purpose of improving access to and use of education data. The **Unlocking Data: Scaling Uses and Users of Education Data** project is a collaborative work led by Zizi Afrique Foundation and supported by Education Sub-Saharan Africa, eBase Africa, and the University of Malawi's Centre for Education Research and Training (CERT). The latter project, which is being implemented in Cameroon, Kenya and Malawi, aims to scale up uses and users of data to address the knowledge gap of how to adaptively scale up the effective use of existing education data by policymakers and researchers in Africa.

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Key Takeaways

- **Foundational learning data in Malawi exists, but remains vastly underutilised.** Despite data being collected by the Ministry of Basic and Secondary Education (MoBSE), the National Statistics Office (NSO), Non-governmental Organisations (NGOs), and development partners, barriers to access, fragmentation, and low demand at the local level hinder its use in improving learning outcomes.
- **Most available evidence is concentrated on early primary grades and literacy, with major gaps in numeracy, socio-emotional learning, and pre-primary education.**
- **Regarding policy focus areas, research mainly addresses quality and relevance, with less attention given to equity, efficiency, or financing in foundational learning.**
- **Data collected at the school and district levels rarely informs local decision-making.** Evidence flows predominantly from the MoBSE to local councils and other stakeholders, with limited reverse flow or local utilisation. This is even though most data used in evidence generation at the central level is generated at the local level, i.e., schools, suggesting that data is hardly utilised to drive decision-making at the lower levels.
- **Access barriers and weak research infrastructure constrain evidence use.** Technical limitations, lack of open-access platforms, and low digital capacity among researchers and policymakers restrict data-driven decision-making.
- **Gender imbalance in research leadership persists.** Men account for 61.5% of researchers in foundational learning, and some studies do not disaggregate their data by gender, limiting the depth of gender-related findings.

1. Background

Foundational learning in Malawi constitutes the largest sector of the education system, as nearly two-thirds of primary enrolment is concentrated in the foundational years, especially Grades 1 to 4 (↑Asim & Gera, 2024; ↑Kadzamira & Rose, 2003). Despite this, the sector continues to face critical challenges such as restricted access to early childhood education (ECE) and low internal efficiency (high repetition and dropout rates) at the primary level. At the ECE level, according to the 2024 Education Sector Performance Report, only 54% of eligible learners are enrolled in ECE (↑Ministry of Education, 2024). One reason for the low enrolment rate is that government support for this sub-sector has been grossly inadequate and accounted for only 0.02% of the national budget in 2024. At the primary education level, the low internal efficiency disproportionately affects the foundational years (Standards 1–4). For example, in

2023–2024, the highest repetition rate was in Standard 1 at 37% compared to 18% in Standard 8n(↑Ministry of Education, 2024). In addition to these challenges, learning poverty remains persistent in the foundational learning sector. Numerous learning assessment surveys, such as the Multiple Indicators Cluster Survey and the Malawi Longitudinal School Survey, have shown that only about 19% of learners demonstrated foundational learning skills and that 78% of students could not read a simple word with any understanding.

Several policies and plans govern foundational learning in Malawi. Key among these are the Education Act 2013, National Education Sector Investment Plan (NESIP, 2020-2030), National Early Childhood Development Policy (NECDP), and National Education Policy (NEP). The Education Act conceptualises education as a fundamental human right and provides free and compulsory basic education. At the implementation level, the various education policies and plans set out the policy direction and strategies necessary for actualising this fundamental human right.

Despite growing recognition of the importance of foundational literacy and numeracy (FLN), the effective use of data to inform policy and practice in Malawi remains limited. A comprehensive mapping of available research and data exposed critical gaps in the foundational learning evidence ecosystem, highlighting fragmented sources, inaccessible repositories, and underutilised data. This policy brief outlines the current landscape of foundational learning data, its use, and the challenges hindering its effective utilisation. It provides actionable recommendations to strengthen data systems, improve accessibility, and enhance coordination among all stakeholders in the foundational learning space.

2. Existing Sources of Foundational Learning Data

Malawi's foundational learning data is primarily generated from the following:

- **Administrative data** from the Ministry of Education (MoE) through the Education Management Information System (EMIS), annual school census, and cohort tracking. In addition, data is generated by other departments through programmes that are being implemented. Such data, however, is not integrated into the EMIS, leading to data fragmentation within the ministry.
- **Learning assessments** include the Monitoring Learning Achievement (MLA) surveys conducted periodically and various zonal and district-level assessments, carried out termly or annually.
- **Early Childhood Education (ECE) data** is collected by the Ministry of Gender, Community Development and Social Welfare (MoGCDSW). Comprehensive ECD data is available for selected districts through the pilot Early Childhood Development EMIS (ECDEMIS).

- **Household surveys** conducted by the National Statistical Office (NSO) include the Integrated Household Survey, Demographic and Health Survey and Multiple Indicator Cluster Survey.
- **Programmatic data** from development partners such as UNICEF, USAID, Save the Children, CAMFED, CRECCOM, and SAFE.

Among the key FL datasets identified, the most comprehensive datasets include:

- **EMIS Annual School Census**: Captures data on enrolment, dropout, repetition, infrastructure, and teaching resources.
- **Cohort Tracking**: Follows individual learners through the education system, offering granular data on transitions, repetitions, and dropouts.
- **Malawi Longitudinal School Survey (MLSS)**: captured data on the primary education system, including student participation, infrastructure and resources, and learning outcomes. The data support policy design under the Malawi Education Reform Programme (MERP).
- **Development Partner Datasets**: Often project-specific and held outside government systems, contributing to fragmented data.

3. Use of Foundational Learning Data

While some data, such as that from the MLSS, informs policy design (e.g., MERP), foundational learning data remains largely underutilised. Between 2010 and 2024, only 131 reports and articles focusing on foundational learning have been identified. A comprehensive analysis of this literature using the Evidence Gap Map (EGM) was undertaken by the UDI team (↑Saddick et al., 2025). The EGM analysis has revealed significant gaps in foundational learning research in Malawi. Key areas lacking sufficient evidence include the impact of instructional interventions on socio-emotional and equity-related outcomes, such as gender, disability, and geographic disparities. There is limited research on how early childhood interventions, like pre-primary education and parenting programmes, affect foundational literacy and numeracy in later grades. Additionally, system-level reforms are rarely linked to changes in classroom practice or student learning, pointing to a disconnect between policy and outcomes. Several promising but under-researched interventions include socio-emotional learning, behavioural nudges, physical learning environment improvements, and community-based parental engagement. One major reason accounting for the limited generation of evidence despite the existence of data is a lack of awareness among users, including academics and policymakers, of what data is available and how to access it.

4. Challenges Affecting Data Use in Malawi's Foundational Learning Ecosystem

The situational analysis of Malawi's foundational learning data ecosystem (↑Kadzamira et al., 2025) reveals a range of systemic challenges that significantly constrain the effective use of data for policy and decision-making. These challenges not only limit the availability and accessibility of relevant datasets but also impede the generation and application of evidence necessary to drive improvements in foundational learning outcomes.

4.1. Fragmented and Inaccessible Data

One of the most pressing challenges is the fragmented nature of data and research outputs. Foundational learning data is scattered across multiple institutions and organisations, with no centralised repository to facilitate systematic access. Many universities and research institutions lack digital infrastructure to store and share their research, such as online repositories or cloud-based platforms. As a result, valuable data remains siloed or stored in physical formats, making it difficult for researchers and policymakers to access comprehensive, up-to-date evidence.

4.2. Limited Access and Bureaucratic Barriers

Government ministries, particularly the Ministry of Education, hold a wealth of foundational learning data. However, access to this data is often hindered by outdated data-sharing policies and cumbersome bureaucratic procedures. Researchers frequently encounter significant delays or are denied access altogether, especially when requesting datasets held across multiple departments. These barriers force many to collect their own data from primary sources — data that is typically limited in scope and scale, and often insufficient for producing robust evidence to inform large-scale educational decisions.

4.3. Technical and Capacity Constraints

The ability to analyse and utilise data effectively is further constrained by limited technical capacity across the education system. Many stakeholders, including government staff, school leaders, and researchers, lack the digital literacy and data analysis skills needed to make full use of existing datasets. For example, while the Education Management Information System (EMIS) collects large volumes of administrative data annually, only a small fraction is analysed and used in decision-making due to capacity limitations. In addition, key datasets — such as those from the cohort tracking system—are underutilised because of a lack of appropriate data management systems to process and analyse them.

4.4. Inadequate Infrastructure

Infrastructure deficits compound the problem. Many education offices and institutions lack reliable internet connectivity and adequate ICT resources, which restricts the timely sharing and utilisation of data. The absence of cloud-based or centralised digital storage systems further isolates data within individual departments or computers, limiting its accessibility and increasing the risk of data loss.

4.5. Data Ownership and Privacy Concerns

Concerns over confidentiality and unclear ownership hinder data sharing. Researchers and institutions are often reluctant to share their datasets, citing fears of data misuse, breaches of confidentiality, or loss of intellectual property. The lack of formal data governance frameworks exacerbates these concerns, leaving data custodians without clear guidelines or protections for ethical sharing and reuse of information.

4.6. Funding Gaps

Finally, foundational learning data systems are severely underfunded. A large proportion of the national education budget—93% of the 2023/24 basic education allocation—is spent on teacher salaries, leaving little room for investments in data management or research infrastructure. As a result, data collection efforts for assessing learning outcomes, for example, have often been driven and financed by external development partners. This reliance on donor funds has led to inconsistent integration of assessment data into national systems and raises sustainability concerns when external funding ends.

In summary, the challenges facing Malawi's foundational learning data ecosystem are multifaceted and deeply rooted in structural, technical, and financial limitations. Addressing these issues will require coordinated efforts to strengthen data governance, invest in infrastructure and capacity, and foster a culture of data sharing and use across the education sector.

5. Recommendations

1. Establish a National Data-Sharing Framework
Develop and enforce clear policies on data access, ownership, and privacy. Simplify approval processes and set up a secure, centralised platform for storing and sharing foundational learning data. Encourage open-access standards across government and academic institutions to increase transparency and data availability.

2. Strengthen Stakeholder Collaboration
Promote formal data-sharing agreements and collaborative platforms among the

Ministry of Education, NGOs, universities, and development partners. Support joint data ownership and co-development of data portals to enhance coordination and reduce fragmentation.

3. Enhance Technical and Human Capacity
Invest in capacity-building initiatives to equip education stakeholders with the skills to analyse and use data effectively. Establish communities of practice and mentorship programmes to foster local research expertise and promote evidence-based decision-making.

4. Boost Investment in Data Systems and Infrastructure
Prioritise funding for foundational learning data collection, EMIS operations, and the integration of non-EMIS datasets. Expand ICT infrastructure and adopt cost-effective digital tools to enable timely, accurate, and scalable data collection and analysis.

6. Conclusion

Malawi possesses a wealth of foundational learning data, but its potential remains largely untapped due to structural, technical, and policy-related barriers. Addressing these challenges through improved accessibility, stronger collaboration, increased capacity, and targeted investment will unlock the power of data for better educational outcomes. By strengthening data systems and fostering a culture of evidence use, Malawi can build a more inclusive and effective foundation for learning, ensuring that all children are equipped with the skills they need to thrive.

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These references are available digitally in our evidence library at https://docs.edtechhub.org/lib/F2B6I77X

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