



# Mapping foundational literacy and numeracy publications in sub-Saharan Africa from international databases

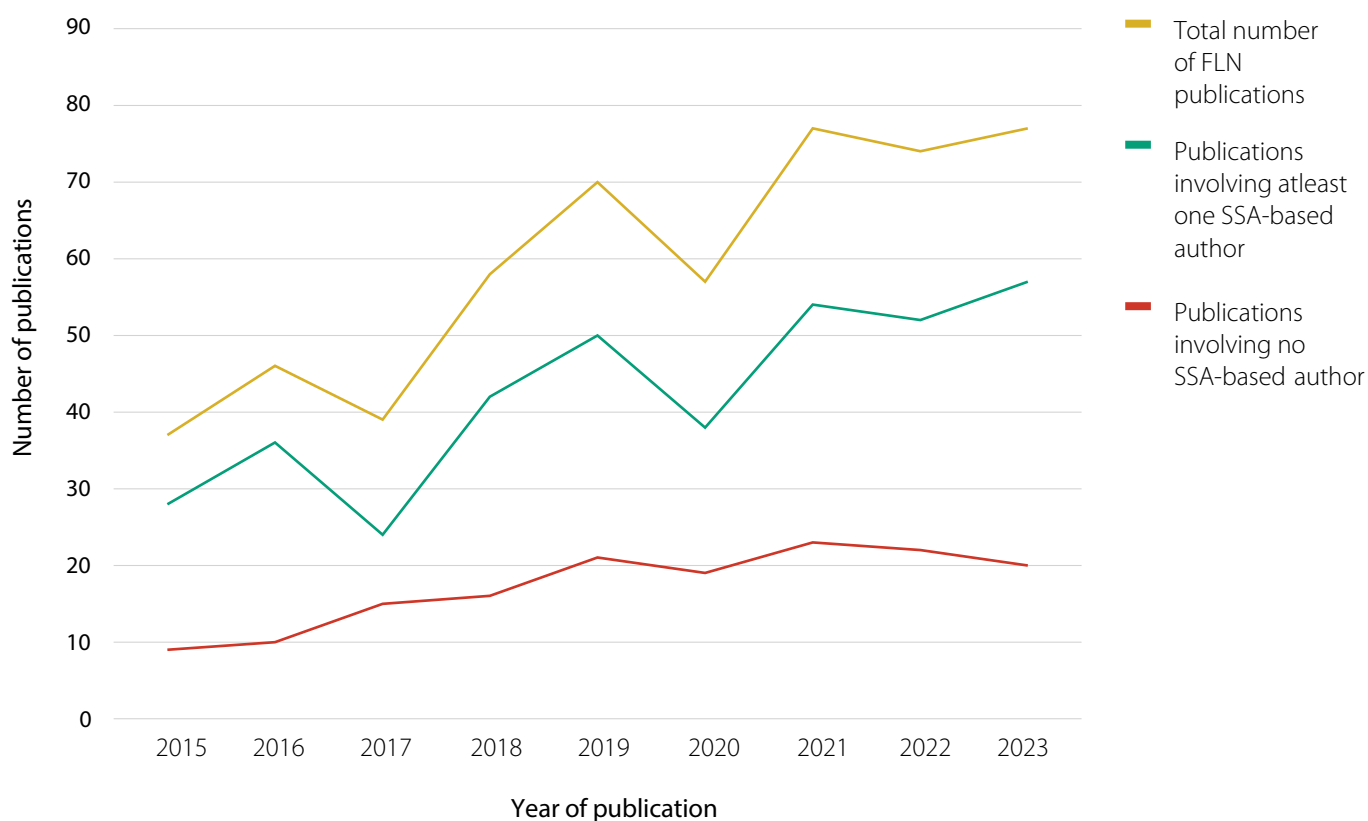
## Summary

This summary identifies trends and patterns in publications in 48 sub-Saharan African (SSA) countries related to Foundational Literacy and Numeracy (FLN). The analysis is based on searches of international databases (primarily ones including publications in English and French) from 2015 to 2023. The focus on FLN is aligned with Sustainable Development Goal 4.1 and the Continental Education Strategy for Africa 2016-2025. Specifically, research conducted by researchers based in SSA, was documented and compared with publications by those outside of the region. It includes an assessment of publications in English and French in particular. The methodology for the mapping can be found in the full report.

FLN includes the basic skills that are essential for achieving broader educational objectives for individuals and societies. However, the development and attainment of these basic skills remain a significant challenge in many countries in the Global South, particularly in SSA, where only one in five children reaches the minimum proficiency level by the end of primary education.

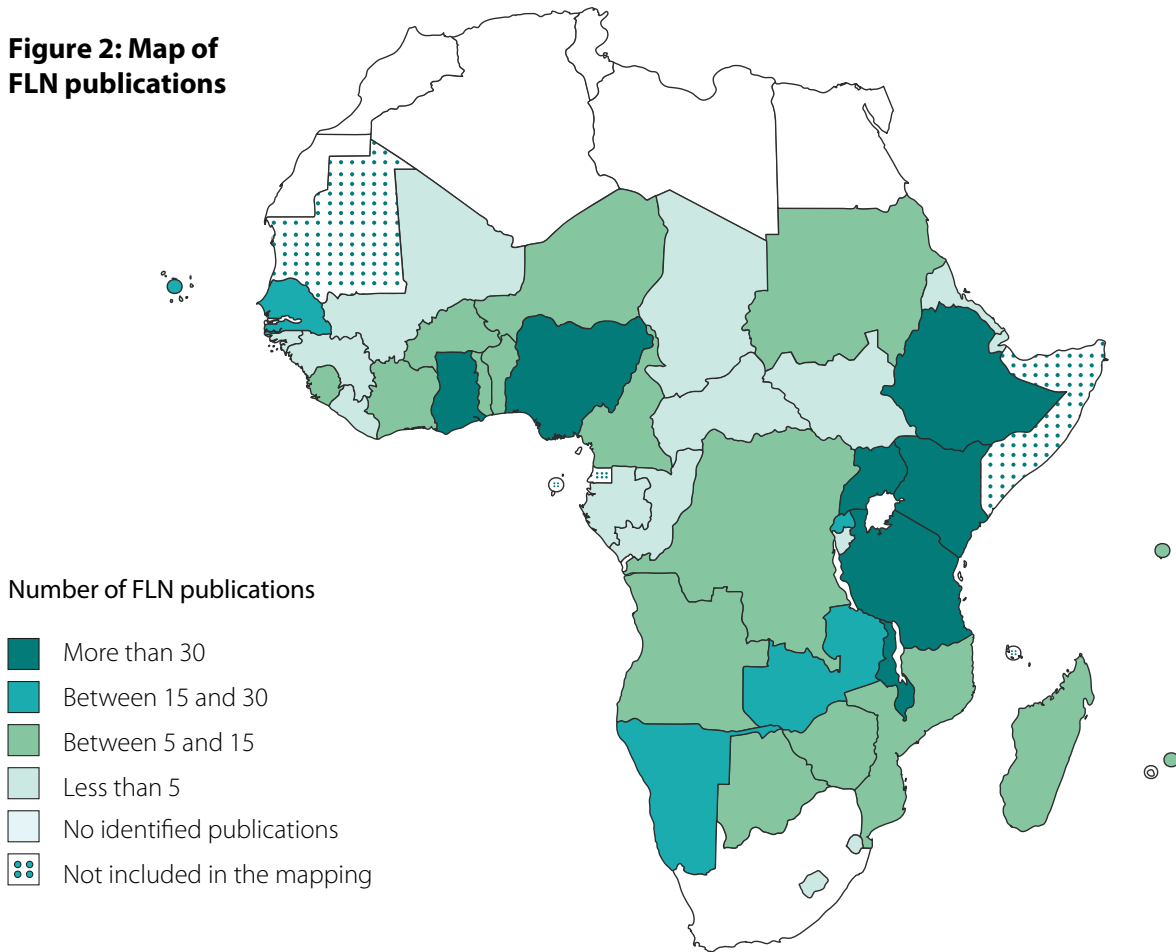
FLN research in SSA has seen a consistent increase in output, with significant contributions from SSA-based scholars. In total, 536 publications were identified over the period 2015 to 2023, more than two thirds of which included an author based in SSA (Figure 1). Two thirds of these publications were identified as directly relevant to FLN (i.e. that learning outcomes related to children's skills development and/or literacy and numeracy learning environments and practices).

**Figure 1: Annual number of publications (2015-2023)**



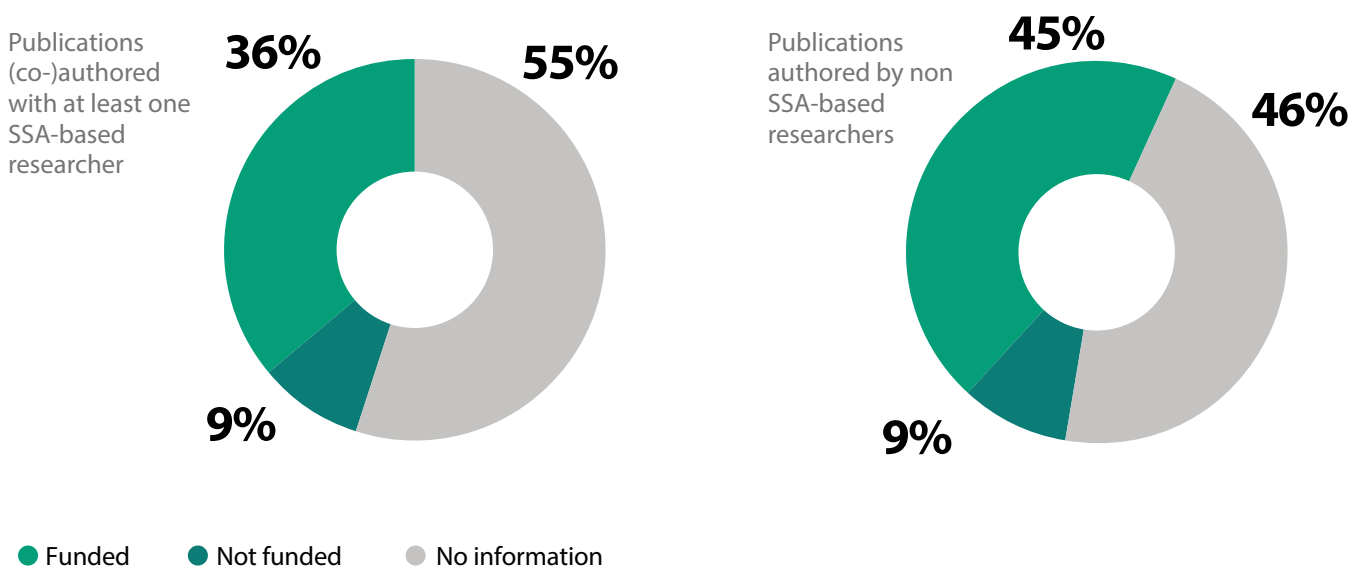
Our analysis highlights significant disparities in language and geographic representation within FLN research. Most publications identified were in English (90 percent). Only 9 percent were in French and 1 percent in Portuguese. Six countries contributed almost three quarters of the total publications identified (Kenya, Uganda, Nigeria, Ethiopia, Tanzania, and Malawi). By contrast, no publications on FLN were found for Equatorial Guinea, Comoros, Mauritania, Sao Tome and Principe, and Somalia. This is likely to be influenced by the predominance of English language publications in general and their greater availability in international databases. Out of the 64 publications co-authored by SSA-based researchers in Francophone countries that were identified, nearly half were published in English (31). This highlights that SSA-based researchers were rarely publishing in French in Francophone countries. It raises questions about their dissemination and uptake by policymakers, particularly in countries where English is rarely used.

**Figure 2: Map of FLN publications**



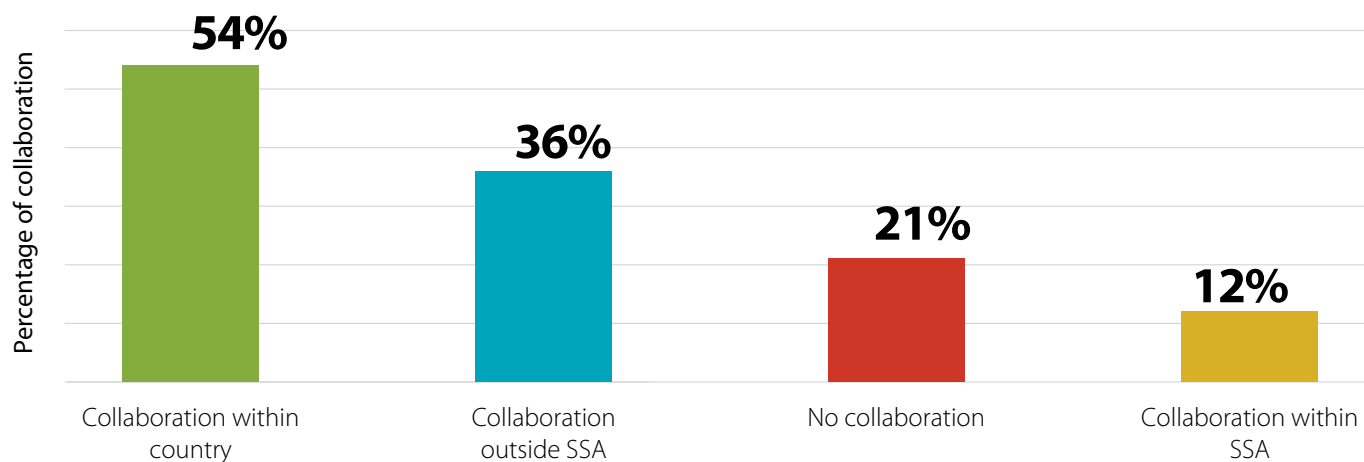
Less than half of the FLN studies reported receiving funding. External funding sources, particularly from the USA and UK, were most prevalent. A higher proportion of non-SSA-based authored publications reported funding compared with those including SSA-based researchers (Figure 3).

**Figure 3: Funding landscape for FLN research in SSA (2015-2023)**



Collaboration in publications predominantly occurred within country (Figure 4). More than one third of the publications (co-)authored by SSA-based researchers involved partners based outside SSA, while 12 percent were based on collaborations within SSA. A different pattern was observed in Francophone countries, where 65 percent of the identified Francophone publications were authored by a sole researcher.

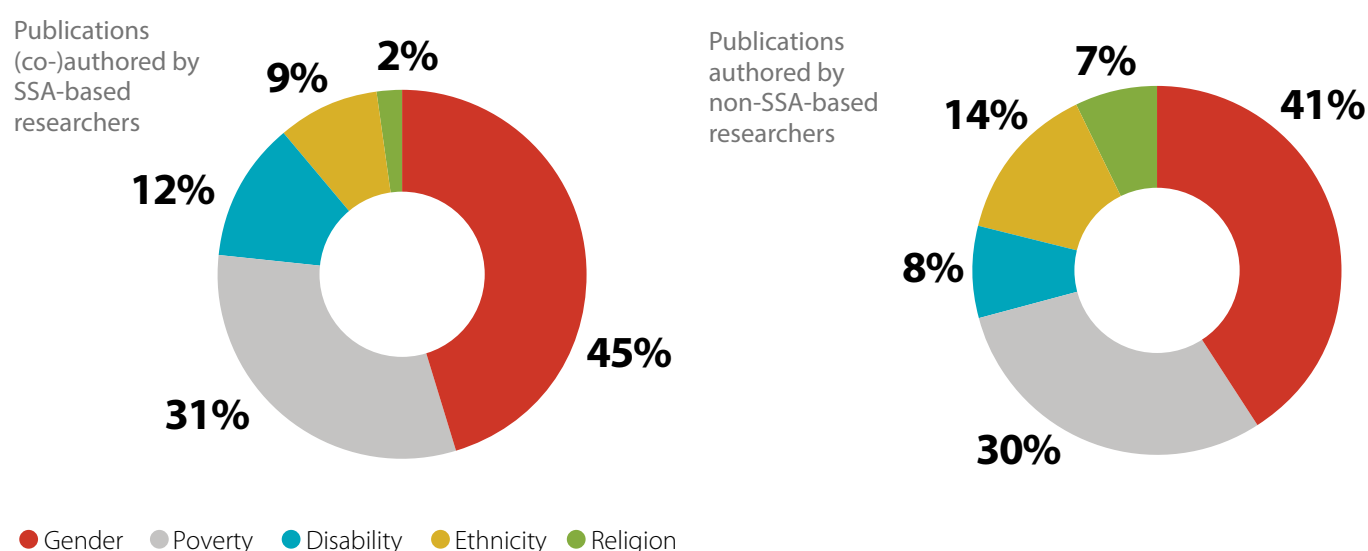
**Figure 4: Collaborations in FLN publications involving SSA-based researchers (2015-2023)**



Half of the FLN publications identified were available as open access. A slightly higher proportion of publications involving SSA-based researchers were open access compared to those authored by non-SSA-based researchers. In total, 60 percent of FLN publications were published in 'higher impact' journals (often viewed as a proxy for quality of the journal). Almost three quarters of publications that did not involve SSA-based authors were published in 'higher impact' journals articles which were often not open access.

Overall, only half of publications identified included inequality in the analysis. Gender and poverty emerged as the most commonly addressed indicators for publications that do and do not include SSA-based authors. Issues related to disability were rarely studied (Figure 5). Studies focusing on rural communities were more prevalent among non-SSA-based researchers: around 25 percent of these studies were focused on rural settings, compared to only 14 percent for those conducted by SSA-based researchers. Only seven studies, regardless of authorship, included gender, disabilities, and rural settings simultaneously.

**Figure 5: Proportion of inequality factors used in FLN publications by authorship**



Gender disparities existed among SSA-based authors of FLN studies – only 36 percent of the authors were women, on average, although this varied across countries.

The majority of FLN studies focused on literacy, often in conjunction with reading skills, followed by research on numeracy and mathematics. Topics such as socio-emotional skills, writing and speaking skills received comparatively less attention. A strong emphasis on language and curriculum, particularly on languages of instruction, was apparent. Studies on student learning and assessment were also prominent. Other notable themes included teachers and teaching, which explored instructional quality and teacher capacity. Equitable, inclusive education that addressed the educational needs of marginalised children also were less apparent.

## Recommendations include:

- ◆ **Strengthen research visibility of publications in different languages.** Universities, research institutions, governments and publishers need to address language barriers by improving availability, visibility and accessibility of FLN research in languages other than English.
- ◆ **Diversify funding sources.** Funding sources need to be expanded and diversified for FLN research beyond traditional bilateral donors to further include philanthropic organisations and national government institutions in SSA.
- ◆ **Ensure a focus on aspects of inequality in FLN research.** All stakeholders should increase their focus on identifying and addressing challenges faced in access to quality education by marginalised groups.
- ◆ **Promote gender equity in authorship.** Research institutions, governments and funders should encourage and support initiatives that aim to address barriers faced by female researchers in SSA.
- ◆ **Promote collaboration across SSA countries.** Establish and strengthen FLN networks' activities and influence within SSA.

### This summary is based on:

Binesse, H., & Rose, P. (2024). *Mapping foundational literacy and numeracy research in sub-Saharan Africa: Report on analysis from international databases*. REAL Centre, University of Cambridge and ESSA

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Explore the African Education Research Database: <https://essa-africa.org/AERD>

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