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Factors influencing low literacy competencies among learners in selected primary schools of Chipata District, Eastern Province, Zambia

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A B S T R A C T :

The study investigated the factors influencing low literacy competencies among learners in selected primary schools of Chipata District, Eastern Province, Zambia. Guided by Bronfenbrenner's ecological systems theory and Vygotsky's sociocultural theory, the study pursued five objectives covering the level of literacy competencies and the teacher-related, language-related, home and parental, and school-level factors influencing them. A convergent parallel mixed-methods design was used within a case study of ten purposively selected primary schools. Questionnaires were completed by 120 teachers and 60 parents and guardians, selected through purposive, stratified and simple random sampling, and analysed using descriptive and inferential statistics in SPSS. Teachers rated learners' literacy competencies at a moderate level overall ($M = 3.27$, $SD = 0.76$), with 30.8 per cent of respondents rating learners below the grade-expected mid-point and no urban-rural difference. Teacher-related factors ($r = 0.286$, $p = .002$) and school-level factors, led by teaching and learning materials and class size ($r = 0.298$, $p < .001$), were significantly associated with literacy competency ratings, whereas language-of-instruction factors ($r = -0.015$) and teacher-perceived home factors ($r = -0.003$) were not. Parental involvement rose significantly with parental education, and nearly half of the parents reported that they cannot read. The study recommends targeted provision of materials, attention to class size, practice-focused in-service support, and home-support programmes aimed at parents with least education, and further research using an objective reading assessment and the completed interview analysis.

Keywords: literacy competencies; primary school; teacher factors; teaching and learning materials; class size; parental involvement; Chipata District; Zambia

Introduction

Literacy is the foundation on which all other learning is built. A learner who cannot read with understanding by the end of the early primary grades is likely to struggle in every other subject, because from about Grade 4 the curriculum assumes that learners can read to learn. The scale of the problem is recognised globally: the State of Global Learning Poverty: 2022 Update estimated that 70 per cent of 10-year-olds in low- and middle-income countries could not read and understand a simple text, up from 57 per cent before the COVID-19 pandemic, and placed the estimate for sub-Saharan Africa at 89 per cent (World Bank et al., 2022).

Zambia reflects this wider pattern. A national early grade reading assessment reported that most Grade 3 learners in the countries analysed, including Zambia, could not read a single word of the assessment text (Zambia Monitor, 2025). An assessment covering about 30,000 Grade 2 learners in Southern, Western, North-Western, Eastern and Muchinga provinces found that only 4.6 per cent met the Ministry of Education's minimum reading benchmarks (Lusaka Times, 2022), and the 2021 National Assessment Survey reportedly put the comparable figure at about 4 per cent (Commonwealth Scholarship Commission in the UK, 2026). The picture is not static: after targeted teacher training and the provision of learning materials, the share of Grade 2 learners reading at the minimum proficiency level in the five target provinces had risen to 56 per cent by December 2023 (United States Agency for International Development [USAID], 2024). Low literacy is therefore not inevitable, and the factors behind it are identifiable and addressable.

Reported factors include limited teaching and learning materials, learner absenteeism and late coming, weak parental involvement and gaps in teacher preparedness (Jimaima, 2024). The Assessment for Minimum Proficiency Levels found that, in Zambia, speaking the assessment language at home, parental literacy and parental education had strong effects on reading proficiency (United Nations Educational, Scientific and Cultural Organization Institute for Statistics [UIS], 2024). In Solwezi District, teachers delivering the Primary Literacy Programme (PLP) reported insufficient time to cover the lesson content, learners' difficulty with the language of instruction and absenteeism (Lukama et al., 2024). Most of this evidence comes from other provinces, and the studies conducted in Chipata District itself examined only single aspects of literacy, such as Chinyanja as a medium of instruction (Tembo, 2024) or literacy among learners with hearing impairment (Banda, 2022). Little empirical evidence exists on which factors are responsible for low literacy competencies in mainstream primary schools of the district.

This article reports a study of the factors influencing low literacy competencies among learners in ten selected public primary schools of Chipata District, Eastern Province, Zambia. The study determined the level of literacy competencies of learners and established the teacher-related, language-

related, home and parental, and school-level factors influencing them. Four null hypotheses were tested at the 0.05 level of significance, covering teacher-related factors, the language of instruction and home language, parental involvement, and the availability of teaching and learning materials. The findings provide district-specific evidence for the Ministry of Education, the Chipata District Education Board, school managers and teachers, and organisations supporting literacy in Eastern Province.

Literature review

1.1. Theoretical framework

The study was guided by Bronfenbrenner's ecological systems theory and Vygotsky's sociocultural theory. Ecological systems theory holds that a child develops through continuous, reciprocal interaction with a set of nested environments, so that literacy outcomes cannot be traced to the learner alone but to the classroom, home, school and policy settings in which learning takes place (Bronfenbrenner, 1979, as cited in Erlendsdottir et al., 2022). Sociocultural theory views learning as a socially mediated process in which children develop new skills through guided interaction with more knowledgeable others, such as teachers and parents. Together the two theories frame literacy as an outcome of the joint action of teacher, school, home and language conditions, which is how the factors in this study were grouped.

1.2. Empirical review

International assessments underline the role of the home and the school. The Progress in International Reading Literacy Study (PIRLS) 2021, covering about 57 countries and some 400,000 fourth-grade learners, found that home support had a substantial influence on reading achievement and that higher achievement and more positive attitudes to reading reinforced each other (Mullis et al., 2023). Within the region, Mohohlwane et al. (2024) analysed two randomised evaluations of structured pedagogy programmes in South Africa and found that reading skills transfer best from the home language to a second language, with English-targeted programmes associated with a decline in home-language literacy among learners in the bottom half of the achievement distribution. In rural Malawi, Erlendsdottir et al. (2022) examined parental involvement through an ecological lens, and in Tanzania Edward et al. (2022) found that parental involvement mattered for children's acquisition of Kiswahili pre-reading skills, a regional lingua franca like Chinyanja. Bardack et al. (2023) treated the home language and literacy environment as a determinant of early reading progress in a low-resource Malawian community, and Kula and Mwansa (2022) compared reading and comprehension competence in Bemba across contrasting Zambian settings, underlining the importance of familiar-language literacy.

In Zambia, Njekwa (2022) identified a shortage of programme materials, over-enrolment, weak mentorship and limited parental motivation among the factors that weakened implementation of the PLP in Chirundu District, and Nyambe (2022) reported insufficient materials, over-enrolment and low teacher morale among the correlates of low performance in Kazungula District. Studies in Chipata District have concentrated on specific aspects: varying teacher preparedness and fluency in Chinyanja (Tembo, 2024) and constraints in literacy development among learners with hearing impairment (Banda, 2022).

1.3. Research gap

Across these studies, low literacy has been linked to teacher preparedness, shortages of materials, large classes, weak supervision, home support and the language of instruction. Most Zambian studies were carried out in other districts, however, and those conducted in Chipata each examined one language issue or one special group of learners. No recent study has examined, together, the teacher, school, home and language-related factors behind low literacy competencies in mainstream primary schools of Chipata District. The present study filled this gap with district-specific evidence on the combined influence of these factors.

Methodology

1.4. Research design

The study was guided by the pragmatist paradigm and adopted a convergent parallel mixed-methods design within a case study of selected primary schools in Chipata District (Creswell & Creswell, 2023; Tashakkori et al., 2021). Quantitative and qualitative data were collected during the same period, analysed separately and merged at the interpretation stage.

1.5. Population and sampling

The study covered learners in Grades 2 to 4, their teachers, head teachers and parents or guardians in ten purposively selected public primary schools that included both urban and rural zones and schools reported to have low literacy performance. Teachers were stratified by grade level and drawn by simple random sampling, parents or guardians by simple random sampling, and head teachers, education standards officers and zonal in-service providers purposively. The total sample was 200 respondents (Table 1). All 120 teacher questionnaires and all 60 parent questionnaires were returned completed, a response rate of 100 per cent for both groups.

Table 1 - Sample size distribution.

Respondents	n	Sampling	Instrument
Teachers	120	Stratified and simple random	Questionnaire
Parents/Guardians	60	Simple random	Questionnaire
Head teachers	10	Purposive	Interview guide
Education standards officers	3	Purposive	Interview guide
Zonal in-service providers	7	Purposive	Interview guide
Total	**200**		

1.6. Instruments, validity and reliability

Data were collected with a structured questionnaire for teachers and parents, covering demographic information and the school-related, teacher-related and home-related factors influencing literacy, and a semi-structured interview guide for head teachers, education standards officers and zonal in-service providers. Content validity was established by giving the draft instruments to the research supervisor and subject experts, and the instruments were pretested on about 15 respondents from a school outside the sample. Internal consistency was assessed with Cronbach's alpha against a 0.70 criterion (Bell et al., 2022; Saunders et al., 2023).

1.7. Data analysis and ethics

Quantitative data were analysed in SPSS using descriptive statistics and inferential tests: Pearson correlation, the independent-samples t-test, the chi-square test, the Mann-Whitney U test and the Kruskal-Wallis test (Pallant, 2020). Interview data were to be analysed thematically (Braun & Clarke, 2021); the interview strand had not yet been analysed at the time of writing, so this article reports the quantitative findings. Ethical clearance and permission were obtained from the university, the Provincial Education Office, the District Education Board Secretary and the head teachers, and participation was voluntary, anonymous and confidential.

Results

1.8. Demographic characteristics

Slightly more than half of the 120 teacher respondents were female (55.8 per cent), most held a Primary Teachers Diploma (55.8 per cent), close to two thirds had been trained in the PLP (63.3 per cent), and teachers were evenly drawn from urban and rural schools (Table 2). Of the 60 parent and guardian respondents, 75.0 per cent were female, 46.7 per cent reported that they cannot read, and 75.0 per cent reported that the home language matches the language of instruction (Table 3).

Table 2 - Demographic characteristics of teacher respondents (n = 120).

Variable	Category	n	%
Sex	Male	53	44.2
	Female	67	55.8
Qualification	Certificate	23	19.2
	Primary Teachers Diploma	67	55.8
	Bachelor's degree	30	25.0
Experience	Under 5 years	19	15.8
	5-10 years	42	35.0
	11-15 years	40	33.3
	Over 15 years	19	15.8
PLP training	Trained	76	63.3
	Not trained	44	36.7
School zone	Urban	60	50.0
	Rural	60	50.0

Table 3 - Demographic characteristics of parent and guardian respondents (n = 60).

Variable	Category	n	%
Sex	Male	15	25.0
	Female	45	75.0
Education	No formal education	10	16.7
	Primary	20	33.3
	Secondary	18	30.0
	Post-secondary	12	20.0
Relation to child	Parent	29	48.3
	Guardian	25	41.7
	Other relative	6	10.0
Own reading ability	Cannot read	28	46.7
	With difficulty	18	30.0
	Reads well	14	23.3
Home language matches LoI	Yes	45	75.0
	No	15	25.0

1.9. Level of literacy competencies

Teachers rated learners' literacy competencies on a five-point scale on which 3 represents the moderate, grade-expected level. The overall mean rating was 3.27 (SD = 0.76), just above the mid-point, with {lo.lower()} rated lowest (M = {comp[lo]:.2f}) and {hi.lower()} highest (M = {comp[hi]:.2f}) (Table 4; Fig. 1). The ratings varied widely: 37 of the 120 teachers (30.8 per cent) rated learners below the mid-point, and the difference between urban (M = 3.29) and rural (M = 3.26) schools was not statistically significant (Mann-Whitney U, p = .814). The level of literacy competencies in the sampled schools is therefore characterised as moderate overall, with a substantial below-benchmark group, suggesting that literacy difficulties in the district are concentrated in an identifiable group of learners rather than uniform across all learners.

Table 4 - Teachers' ratings of learners' literacy competencies (n = 120).

Literacy component	n	Mean (1-5)	SD
Letter-sound knowledge	120	3.27	1.10
Word recognition and decoding	120	3.31	1.03
Reading fluency	120	3.14	1.03
Comprehension	120	3.37	1.04
Overall	**120**	**3.27**	**0.76**

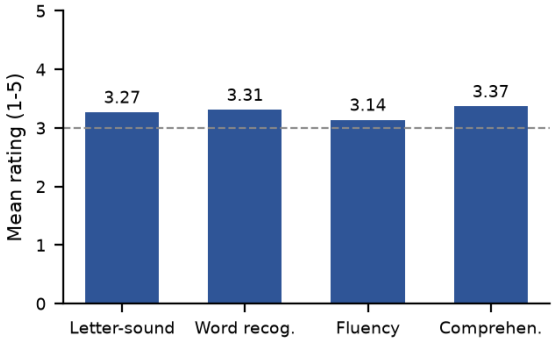


Fig. 1 - Teachers' mean ratings of literacy components (1-5 scale); dashed line marks the grade-expected mid-point.

1.10. Correlates of literacy competency ratings

The composite teacher-factors score (professional training in literacy instruction, teaching methods, attitude and motivation, and absenteeism) correlated positively and significantly with literacy competency ratings, r = {domains["Teacher-related factors (TF)"]:.3f}, p = .002, and all four constituent items were also significant (r = {min(tf_items):.3f} to {max(tf_items):.3f}, p < .05). Teachers trained in the PLP rated learners slightly higher (M = 3.32) than teachers without such training (M = 3.19), but not significantly (t = 0.88, p = .383), and qualifications showed no significant association with the ratings (chi-square, p = .636).

Contrary to expectation, the language-factors score was not significantly associated with literacy ratings, r = -0.015, p = .867, and none of its three items was significant. Among parents, 75.0 per cent reported that the home language matches the language of instruction, but because the parent questionnaire included no literacy rating, the home-language match could not be linked directly to learner outcomes in these data.

The teacher-perceived home-factors score showed no significant correlation with literacy ratings, r = -0.003, p = .973. When aggregated to the school level, however, a moderate positive association appeared (r = 0.58, p = .078), which falls just short of significance with only ten schools. Direct parental reports showed a mean parental involvement of 3.10 (SD = 0.78) and a home literacy and support environment of 3.02 (SD = 0.86); parental involvement rose significantly with parental education, from 2.80 among parents with no formal education to 3.78 among those with post-secondary education (Kruskal-Wallis H = 12.89, p = .005), and 28 of the 60 parents (46.7 per cent) reported that they cannot read.

The composite school-factors score correlated positively and significantly with literacy ratings, r = {domains["School-level factors (SF)"]:.3f}, p < .001, the strongest of the four domains. The availability of teaching and learning materials (r = 0.251, p = .006) and class size (r = 0.263, p = .004) were the significant items, school management support was significant at the 5 per cent level (r = 0.195, p = .033), and instructional time fell just short of significance (r = 0.156, p = .088). Table 5 summarises the correlation results and Fig. 2 compares the four domains.

Table 5 - Correlations between factor scales and literacy competency ratings (n = 120).

Measure	r	p	Decision
Teacher-factors scale (TF)	**0.286**	**.002**	**Significant**
Language-factors scale (LF)	-0.015	.867	Not significant
Home-factors scale (HF)	-0.003	.973	Not significant
HF, school level (10 schools)	0.581	.078	Not significant (trend)
School-factors scale (SF)	**0.298**	**< .001**	**Significant**
SF1: Teaching and learning materials	0.251	.006	Significant
SF2: Class size	0.263	.004	Significant
SF3: Instructional time	0.156	.088	Not significant
SF4: School management	0.195	.033	Significant

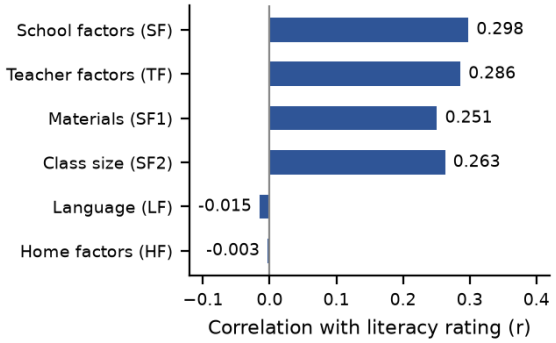


Fig. 2 - Correlation of factor domains and school-factor items with literacy competency ratings.

1.11. Reliability of the scales

Six of the seven scales met the 0.70 criterion; the home-factors scale (0.68) and the language-factors scale (0.60) fell slightly below it (Table 6). Because both scales also produced null results, the possibility that these findings partly reflect lower internal consistency is acknowledged as a limitation.

Table 6 - Cronbach's alpha for the study scales.

Scale	Items	Cronbach's alpha
Teacher factors (TF)	4	0.75
School factors (SF)	4	0.70
Home factors (HF)	4	0.68
Language factors (LF)	3	0.60
Learner literacy (LL)	4	0.71
Parental involvement (PI)	5	0.79
Parental literacy/home support (PL)	3	0.71

Discussion

The quantitative findings point to a clearer hierarchy of factors than the study anticipated. The significant correlates were concentrated in the school and teacher domains: the day-to-day conditions of literacy teaching (r = 0.286) and school-level resource conditions, led by teaching and learning materials and class size (r = 0.298), travelled with better literacy ratings, while the language-of-instruction and teacher-perceived home factors did not. Consistent with ecological systems theory, no single domain explains the outcome, but within this sample the factors most open to school-level action were the ones associated with literacy outcomes.

Two results qualify the null findings. First, the language and home scales showed the lowest internal consistency, so the null results may partly reflect measurement weakness. Second, the parent data could not be linked to learner outcomes, yet the home domain was still visible in the parents' own reports: nearly half of the parents cannot read and parental involvement rises steeply with parental education. These results are therefore treated as inconclusive rather than as proof that language and home factors do not matter.

The study has limitations. The literacy measures are teacher perceptions rather than an objective reading assessment; only ten schools were covered, which limits the school-level analysis; and self-reported data may be subject to social desirability. The qualitative interview strand had not yet been analysed at the time of writing.

Conclusion and recommendations

The level of literacy competencies in the sampled schools is moderate overall but uneven, with roughly three in ten respondents describing learners as below the grade-expected level, so the district's literacy problem is one of a substantial underperforming group rather than uniform failure. The day-to-day conditions of literacy teaching and school-level resource conditions, led by materials and class size, are the factors most strongly associated with learners' literacy competencies, while formal qualifications and attendance at PLP training by themselves did not distinguish higher from lower ratings. The expected language and home effects did not appear in the teacher-perception data and are treated as inconclusive.

- The Ministry of Education and the Chipata District Education Board should prioritise the provision of graded readers and other teaching and learning materials (r = 0.251, p = .006) and address class size (r = 0.263, p = .004), and review in-service support so that it changes classroom practice, given that attendance at PLP training alone was not associated with better outcomes (p = .383).
- Head teachers and teachers should strengthen the working conditions captured by the teacher-factors scale, including sustained use of effective literacy teaching methods, teacher motivation and the management of absenteeism, and protect instructional time for the literacy lesson.
- Parents, communities and supporting organisations should direct home-reading support first to the families least able to provide it, since parental involvement rises with parental education (from 2.80 to 3.78) and nearly half of the parents surveyed (46.7 per cent) cannot read; simple, non-text-based strategies are more realistic than requests to read with children.

- The District Education Board Secretary should use these district-specific findings to target materials and supervision, and commission an objective early grade reading assessment to triangulate the perceptual evidence reported here.

Further research should include an objective early grade reading assessment in the sampled schools, completion and reporting of the qualitative interview strand, refinement and retesting of the language- and home-factors scales, and a study with more schools to confirm the school-level home association observed here ($r = 0.58$, $p = .078$).

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REFERENCES

- Banda, J. (2022). Factors affecting literacy skills development among hearing impairments: A case at Magwero School for the Deaf in Chipata District of Eastern Province [Dissertation, University of Zambia]. UNZA Digital Repository. https://dspace.unza.zm/handle/123456789/7427
- Bardack, S., Lopez, C., Levesque, K., Chigeda, A., & Winiko, S. (2023). An exploratory analysis of divergent patterns in reading progression during a tablet-based literacy program. Frontiers in Education, 8, Article 983349. https://doi.org/10.3389/feduc.2023.983349
- Bell, E., Bryman, A., & Harley, B. (2022). Business research methods (6th ed.). Oxford University Press.
- Braun, V., & Clarke, V. (2021). Thematic analysis: A practical guide. SAGE Publications.
- Commonwealth Scholarship Commission in the UK. (2026). Charles Zulu: Case study no. 36. https://cscuk.fcdo.gov.uk/wp-content/uploads/2026/02/CSC_0075_Zulu_Study_FA_AC.pdf
- Creswell, J. W., & Creswell, J. D. (2023). Research design: Qualitative, quantitative, and mixed methods approaches (6th ed.). SAGE Publications.
- Edward, G., Ndijuye, L. G., & Shukia, R. (2022). The role of parental involvements in children's acquisition of Kiswahili pre-reading skills in Tanzania. Global Education Review, 9(3), 19-37.
- Erlendsdottir, G., Macdonald, M. A., Jonsdottir, S. R., & Mtika, P. (2022). Parental involvement in children's primary education: A case study from a rural district in Malawi. South African Journal of Education, 42(3), Article 2133. https://doi.org/10.15700/saje.v42n3a2133
- Jimaima, H. (2024). Teachers' preparedness to teach reading comprehension in English language among grade four learners in selected primary schools in Chongwe district, Zambia [Master's thesis, University of Zambia]. UNZA Institutional Repository. https://dspace.unza.zm/handle/123456789/8821
- Kula, N. C., & Mwansa, J. (2022). Learning literacy in a familiar language: Comparing reading and comprehension competence in Bemba in two contrasting settings in Northern Zambia. Journal of the British Academy, 10(s4), 97-124. https://doi.org/10.5871/jba/010s4.097
- Lukama, K., Nyika, N., & Gumbi, P. (2024). Challenges teachers face when teaching literacy in Kikaonde language, a mother tongue, in selected primary schools of Solwezi District, Zambia. International Journal of Research and Innovation in Social Science, 8(3s), 6128-6137.
- Lusaka Times. (2022, December 7). Only 4.6% of Grade 2 children can read. https://www.lusakatimes.com/2022/12/07/only-4-6-of-grade-2-children-can-read/
- Mohohlwane, N., Taylor, S., Cilliers, J., & Fleisch, B. (2024). Reading skills transfer best from home language to a second language: Policy lessons from two field experiments in South Africa. Journal of Research on Educational Effectiveness, 17(4), 687-710. https://doi.org/10.1080/19345747.2023.2279123
- Mullis, I. V. S., von Davier, M., Foy, P., Fishbein, B., Reynolds, K. A., & Wry, E. (2023). PIRLS 2021 international results in reading. TIMSS & PIRLS International Study Center, Boston College. https://doi.org/10.6017/lse.tpisc.tr2103.kb5342
- Njekwa, N. (2022). Establishing the effect of the primary literacy programme on literacy levels of grade four (4) learners in Chirundu District [Dissertation, University of Zambia]. UNZA Digital Repository. https://dspace.unza.zm/items/8f23cc83-a385-481a-ab1a-8c884a7578d8
- Nyambe, E. (2022). Stakeholders' perception on the low academic performance of grade seven learners in public primary schools in Kazungula District, Southern Province Zambia [Dissertation, University of Zambia]. UNZA Digital Repository. https://dspace.unza.zm/items/c9a71d1c-35bf-4307-8a26-8ed178905ff2
- Pallant, J. (2020). SPSS survey manual: A step by step guide to data analysis using IBM SPSS (7th ed.). Routledge.
- Saunders, M., Lewis, P., & Thornhill, A. (2023). Research methods for business students (9th ed.). Pearson.
- Tashakkori, A., Johnson, R. B., & Teddlie, C. (2021). Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences (2nd ed.). SAGE Publications.
- Tembo, Z. (2024). Exploring teachers' and learners' experiences in the use of Chinyanja as medium of instruction in selected primary schools in Chipata District, Zambia [Master's dissertation, University of Zambia]. UNZA Digital Repository. https://dspace.unza.zm/items/c0c9641c-fc1a-49f9-b71c-8b1e8790ca52
- United Nations Educational, Scientific and Cultural Organization Institute for Statistics. (2024). Assessments for Minimum Proficiency Levels a and b (AMPL-ab): Zambia country summary. https://ampl.uis.unesco.org/wp-content/uploads/sites/27/2024/02/Country-Summary_Zambia__AMPLab-WEB-ok.pdf
- United States Agency for International Development. (2024, May). USAID Zambia Let's Read fact sheet. https://uatweb.usaid.gov/sites/default/files/2024-06/USAID%20Zambia%20Let%26%23039%3Bs%20Read%20Fact%20Sheet%20May%202024.pdf
- World Bank, UNESCO, UNICEF, FCDO, USAID, & Bill & Melinda Gates Foundation. (2022). The state of global learning poverty: 2022 update. World Bank. https://www.worldbank.org/en/news/press-release/2022/06/23/70-of-10-year-olds-now-in-learning-poverty-unable-to-read-and-understand-a-simple-text
- Zambia Monitor. (2025). Early Grade Reading Assessment data released for the first time in 20 years. https://www.zambiamonitor.com/?p=73914