

Early reading skills related to Grade 1 English Second Language Literacy in rural South African schools

Quantitative
Education
Research

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Define tomorrow.

Outline

- Context
- Literature
- Method
- Results
- Discussion
- Future research



Photo: Class Act Educational Services

Context

- English as medium of instruction (Pretorius & Spaull 2016)
 - Grade 1-3: 25% of learners
 - Grade 4: 90% of learners
- L1 can affect English language and literacy development
- Large scale data on decoding AND oral proficiency is minimal
- Especially in grade 1
- In African languages and English

Research Questions

- What language and literacy abilities to learners **start** grade 1 with?
- How do start of grade 1 L1 skills influence ESL skills at the end of the year?

Literature

L1 Reading

Emergent literacy

Bilingualism

Biliteracy

Learning how your language maps sound and meaning onto print (Perfetti 2003)

Alphabet: smallest sounds represented by letter(s) (groups) = phoneme
g* in *gogo*, *dl* in *dlala



Emergent literacy

- Early knowledge of reading and writing (Ntuli & Pretorius 2005)
- Letters
- Rhymes
- Phoneme awareness
- Name writing



[Book](#)
[Dash](#)

Bilingualism and biliteracy

- Transfer (Cummins 1979)
 - Common proficiencies
 - Oral language vs decoding (Melby-Lervåg and Lervåg 2011)
 - Threshold
- Instructional environment (Kim & Piper 2018)

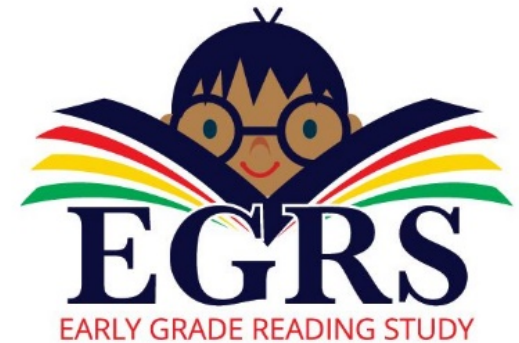
EFAL Curriculum



- Devotion of “substantial amount of time” to English instruction (DBE 2011:9)
- 2-3 hours (Gr 1, 2); 3-4 hours (Gr3)
- 301 – 440 hours of English instruction over FP
- Additive bilingualism = building on L1

Second Early Grade Reading Study

English Additional Language
Mpumalanga



Interventions: 100 schools

Control: 80 schools, 1347 learners

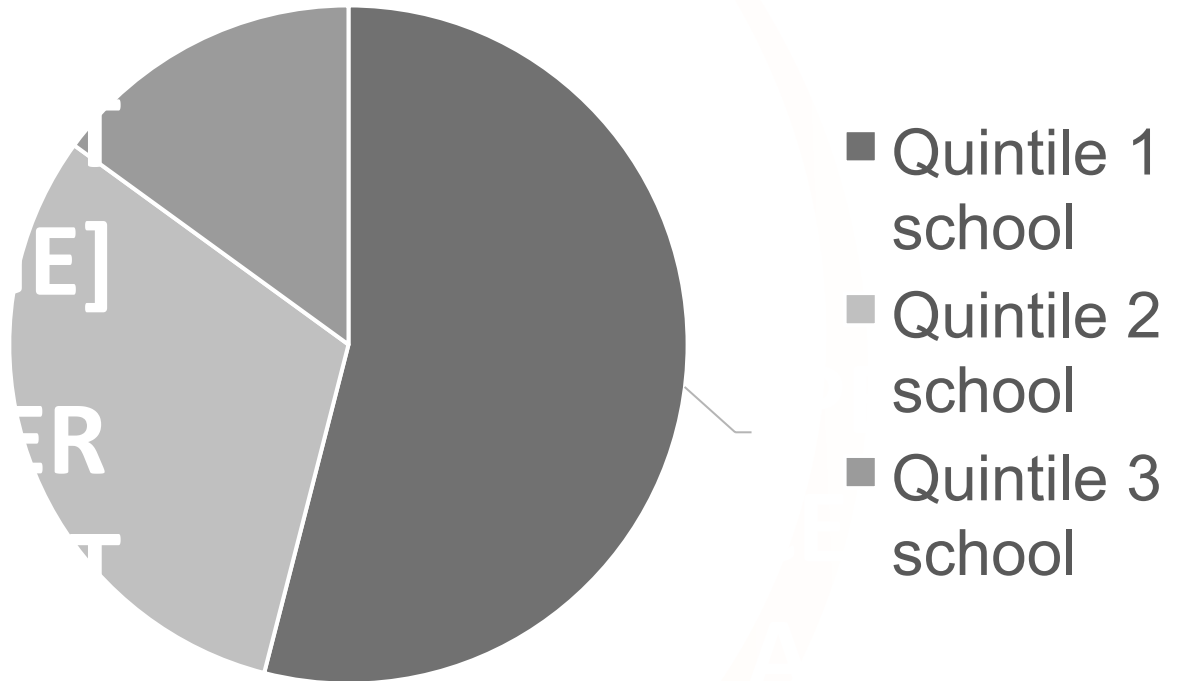
2017: start (Feb) and end (Oct/Nov) of Grade 1
LoLT – isiZulu and SiSwati

Context - Learners

- 53% boys
- 70% speak SiSwati
- 60% parents did not complete secondary
- 28% never speak English at home
- 40% never speak English to others

Context: school

- Mean age teachers: ~50 years old
- 42.8 learners per class



Learner Assessments

Construct		Baseline – start of Gr 1		Midline – end of Gr 1	
		L1	Eng	L1	Eng
Language Proficiency	Receptive Vocabulary		x		x
	Expressive Vocabulary	x	x	x	x
	Listening Comprehension	x			x
Decoding	Phon. working memory	x			
	Phoneme Identification	x			x
	Letter-sound recognition	x			x
	Word reading fluency	x		x	x
Spelling	Spelling of a CVC word				x

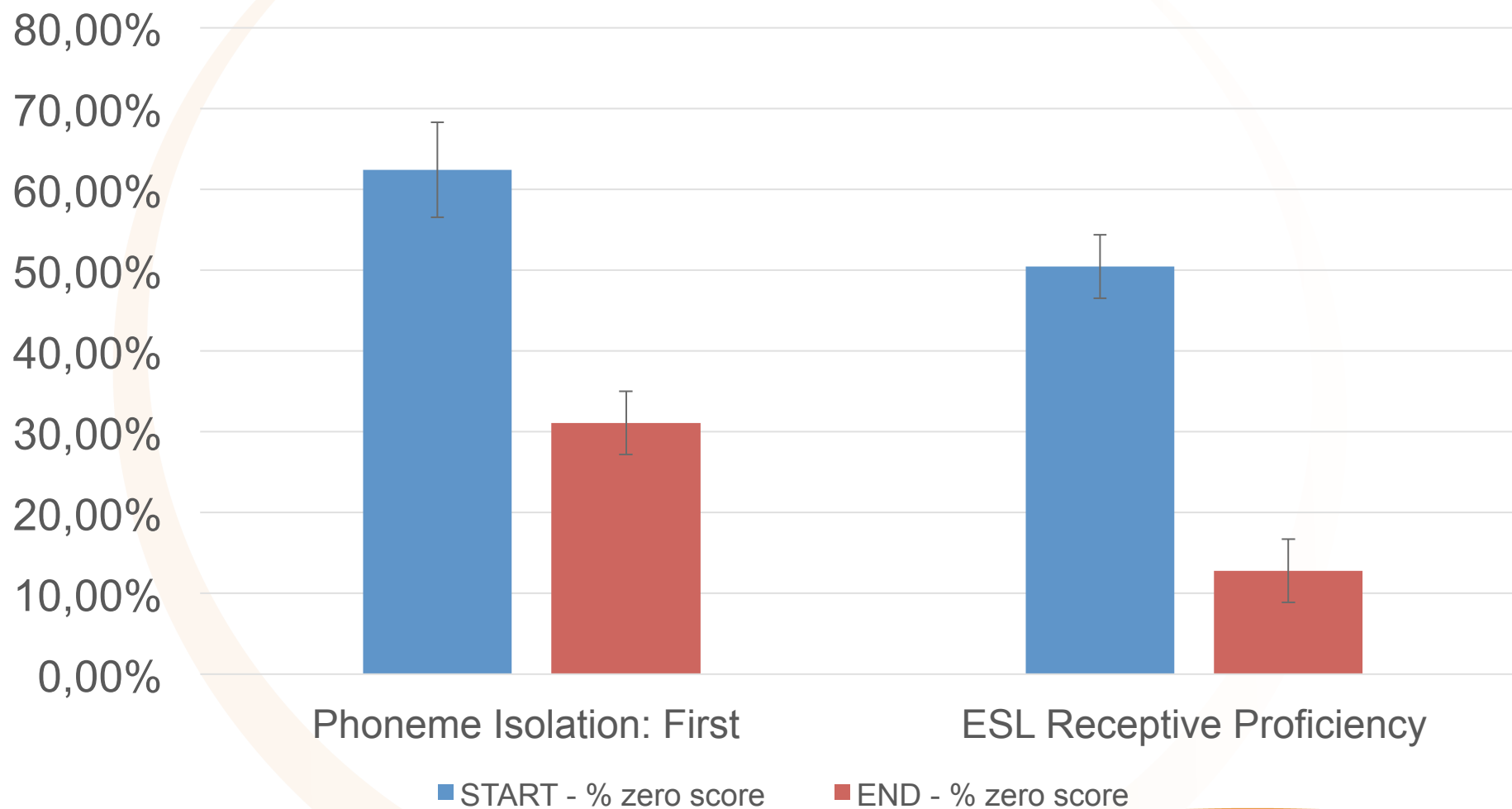
Start of Grade 1

- Varying L1 oral proficiency
- Varying decoding skills, generally low
 - 62.4% cannot identify a first phoneme (*g* of *gogo*)
 - 18% cannot recognize a letter in 1 minute
 - Cannot read words (floor effect)
- Varying knowledge of English
 - 50.4% no receptive knowledge of English (3 items)

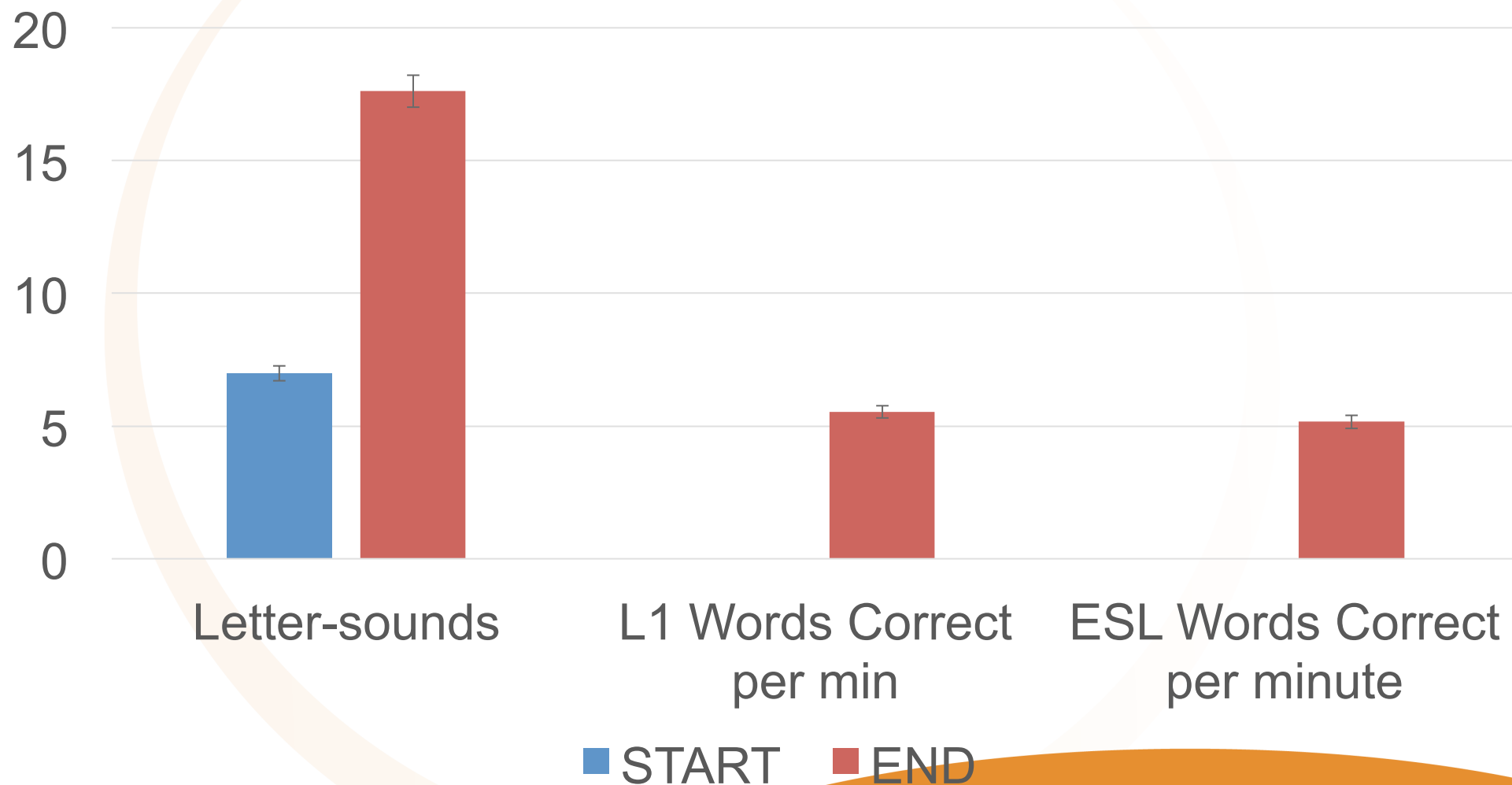
End of Grade 1:

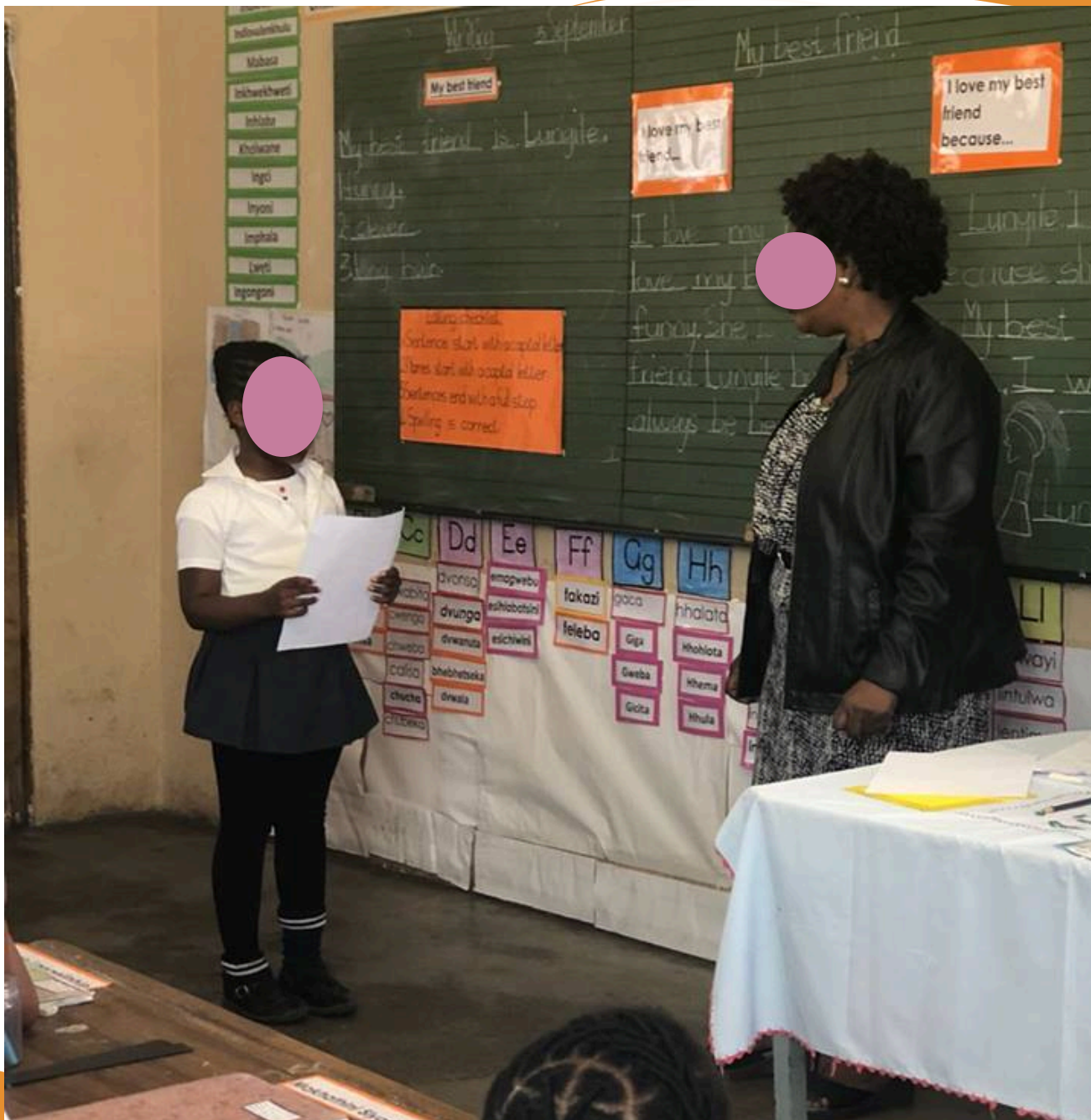
- L1 oral proficiency ceiling effects
- English oral proficiency varies
 - 12.8% of learners cannot understand simple English instructions
 - 66% do not know the English words for *dog*, *pig*
 - 85.9% do not understand a simple English story (listening comprehension)
- L1 and English decoding a problem for some learners
- Writing poor (75.6% cannot write *dog* in available time)

English Oral Proficiency - % Zero Scores at start and end of Gr 1 (95% CI)



Mean L1 and English Decoding at start and end of Grade 1 (95% CI)





**What skills
at the start
of Gr 1 lead
to better
results at
the end of
Gr 1?**

OLS Regression Model with Baseline (start of Gr 1) as Predictors of Midline (end of Gr 1) scores

	L1 Vocab	L1: Words	ESL: PA	ESL: Letters	ESL: Words	ESL: OLP	ESL: Spelling
L1 Vocab	0.011* (0.005)	0.082 (0.107)	0.01 (0.046)	0.127 (0.277)	0.157 (0.106)	0.02 (0.014)	0.004 (0.006)
L1 Phon. Working Memory	0.019 (0.013)	0.234 (0.175)	0.188* (0.089)	0.544 (0.458)	0.129 (0.171)	0.033 (0.027)	0.004 (0.016)
L1 Phon. Identification	-0.005 (0.005)	0.506** (0.154)	0.314*** (0.066)	0.972** (0.329)	0.466** (0.159)	0.022 (0.019)	0.029** (0.009)
L1 Listening Comp.	0.01 (0.009)	0.128 (0.150)	0.296*** (0.074)	0.61 (0.436)	-0.055 (0.188)	0.051* (0.020)	-0.006 (0.011)
L1 Letter Sounds	0.003* (0.001)	0.265*** (0.047)	0.047** (0.016)	0.627*** (0.111)	0.232*** (0.048)	0.016*** (0.004)	0.013*** (0.003)
ESL Vocabulary	-0.019 (0.013)	0.303 (0.205)	0.117 (0.095)	0.673 (0.532)	0.349 (0.215)	0.317*** (0.038)	0.045*** (0.012)
Observations	1347	1347	1347	1347	1346	1345	1342
R-squared	0.022	0.169	0.137	0.154	0.136	0.225	0.169
Average mean	4.897	5.049	3.625	16.663	5.029	0.281	0.235

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Discussion

- Emergent literacy practices:
 - different L1 and English oral language proficiency
 - Some letter knowledge (but not all learners)
- Role of teachers
 - Low exposure to English in home/community
 - Learners' exposure to English differs, and makes a difference
 - Importance of vocabulary in L1 & English

Conclusion

- Transfer:
 - L1 (phoneme awareness and letter knowledge) to English (phoneme awareness, letter knowledge and word reading)
 - L1 oral proficiency to English phoneme awareness and oral proficiency
- **Role of phoneme awareness in African languages**
 - **Important for L1 and English**



Role of vocabulary in reading in African languages and English

Transfer from African language to English and vice versa depending on instructional context

Benchmarks for decoding, norms for vocabulary

Relative importance of English oral proficiency and L1 decoding ability in explaining variance in English decoding and comprehension

Home and community factors which affect start of Gr1 skills, and improvement over time

Why can 10% of readers not read at all?

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