

# Effects of Home Language and Language of Instruction in sub-Saharan Africa

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**Child Development and Learning Seminar Series - March 2025**

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# Introduction

- ❖ **Education Sustainable Development Goals target (4.1):**  
**“all girls and boys [will] complete free, equitable and quality primary and secondary education”.**
- ❖ **Quality Education – know how to read.**
- ❖ **Learning Poverty – defined by International/ Regional Assessments. (PIRLS, TIMSS, PASEC)**  
**“86% of children in sub-Saharan Africa (SSA) suffered from learning poverty” UNESCO 2019**

# Introduction

- ❖ **Sub-Saharan Africa – multilingual.**
- ❖ **Literacy attainment and home-school language.**

# The Driving Issue

- ❖ **“Most children appear to be learning almost nothing in the first three grades.”** (UNESCO 2025)
- ❖ **If students fall behind during grade 1, they may be unable to catch up.** (Abadzi & Martelli, 2014)
- “Not being able to decode well in grade 1 predicted 88 percent of the poor readers in grade 4.”** (Wolf 2007)

# Language of Instruction

- ❖ “In whose language could [students] not read a simple sentence?” (Brock-Utne 2014)
- ❖ Home (*native*) language is critical to improve learning outcomes. (UNESCO 2024)
- ❖ At the same time: “*Mother tongue won’t help you eat.*” (Gellman 2020)

# What are we doing?

❖ UNICEF reports.

## *Our Main Questions*

1. **Consent to foundational learning skills *[FLS]*?**
2. **Consent to read?**
3. **Home language, language of instruction, and foundational reading skills *[FRS]*?**

# Data & Methods

## Data

FLS  
Module  
of  
MICS

17  
SSA  
Countries

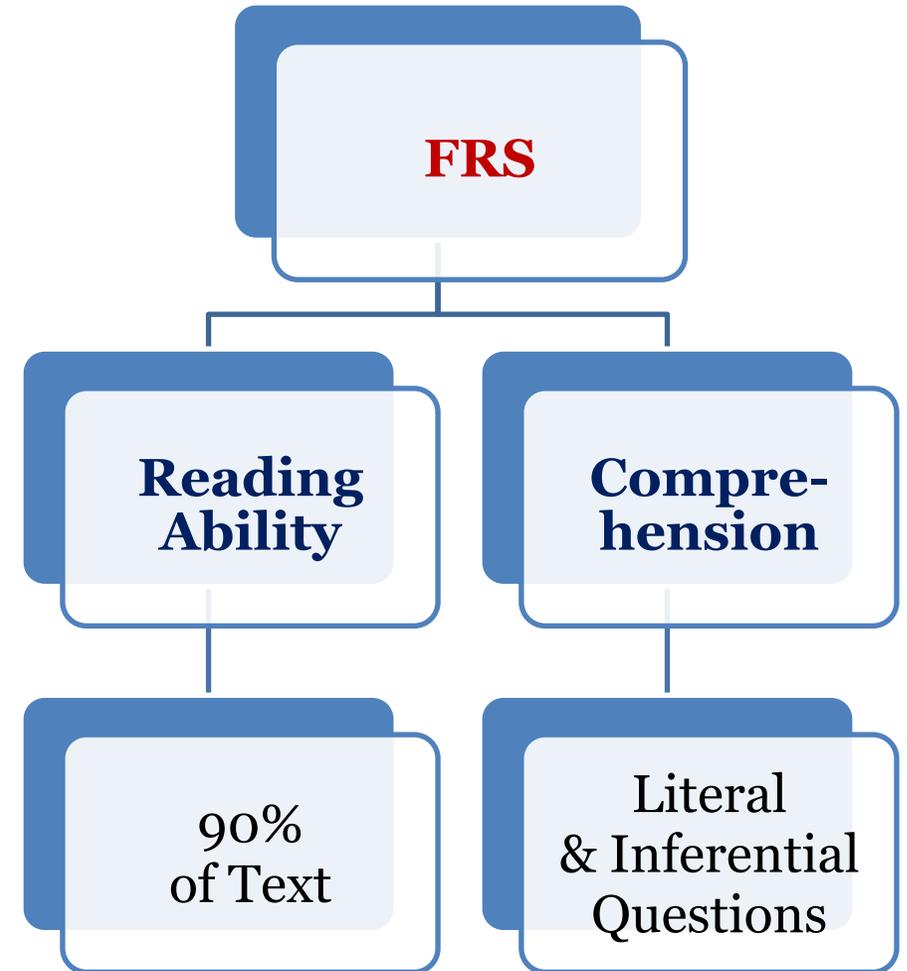
## Focus

Young  
Children  
7-14  
Years Old

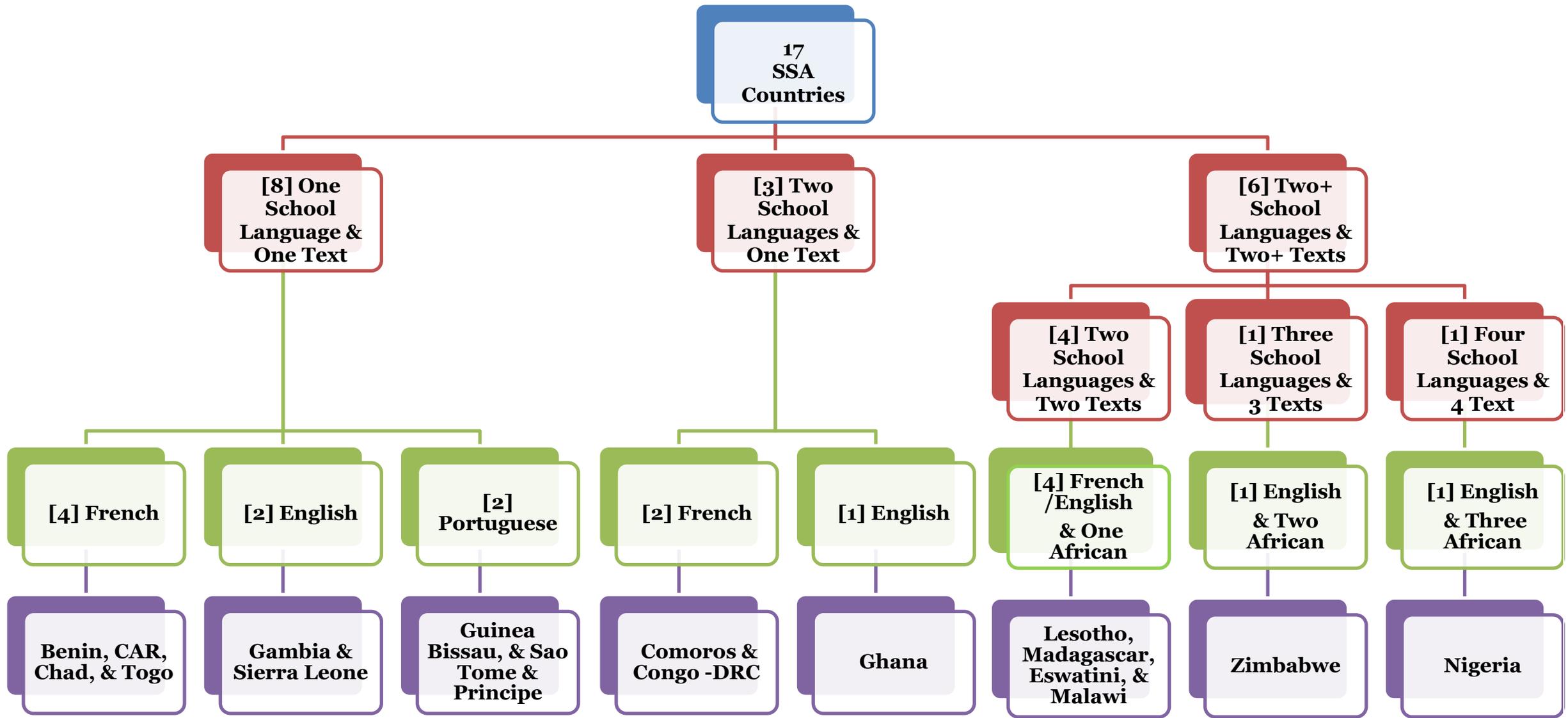
Home-  
School  
Language

## Out- come

Founda-  
tional  
Reading  
Skills  
[FRS]

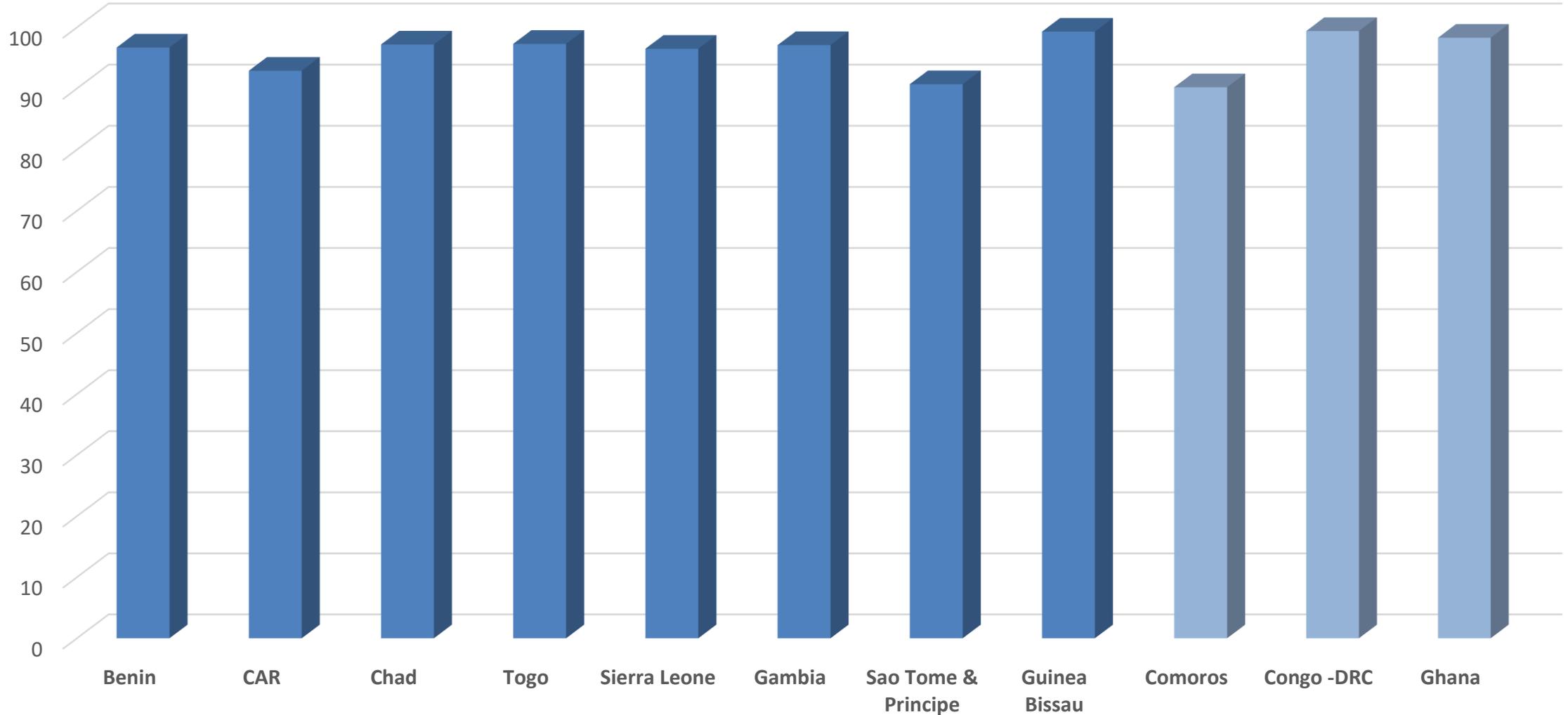


*Descriptive & Multivariate Statistics*

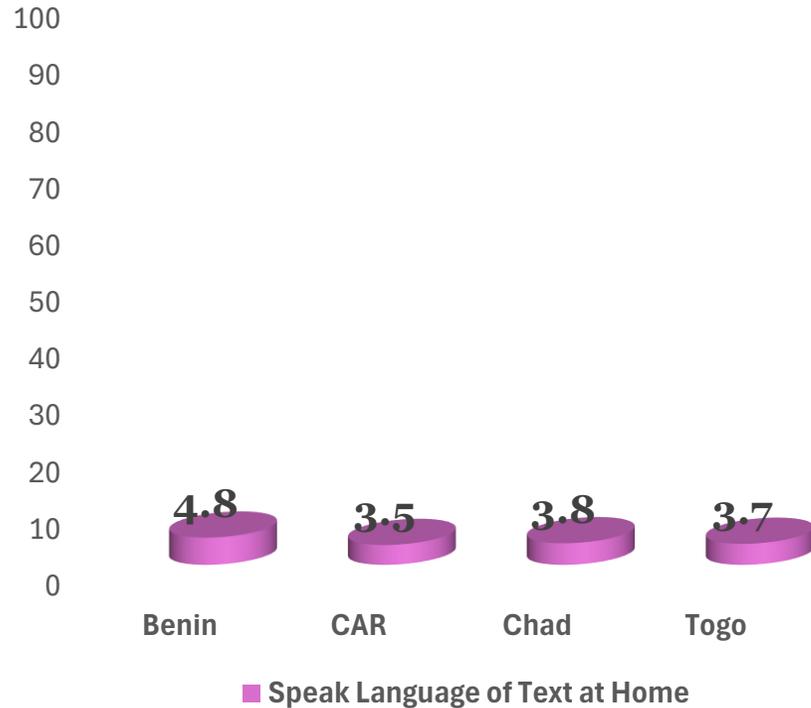


**Simple  
&  
Bivariate  
Descriptive  
Statistics**

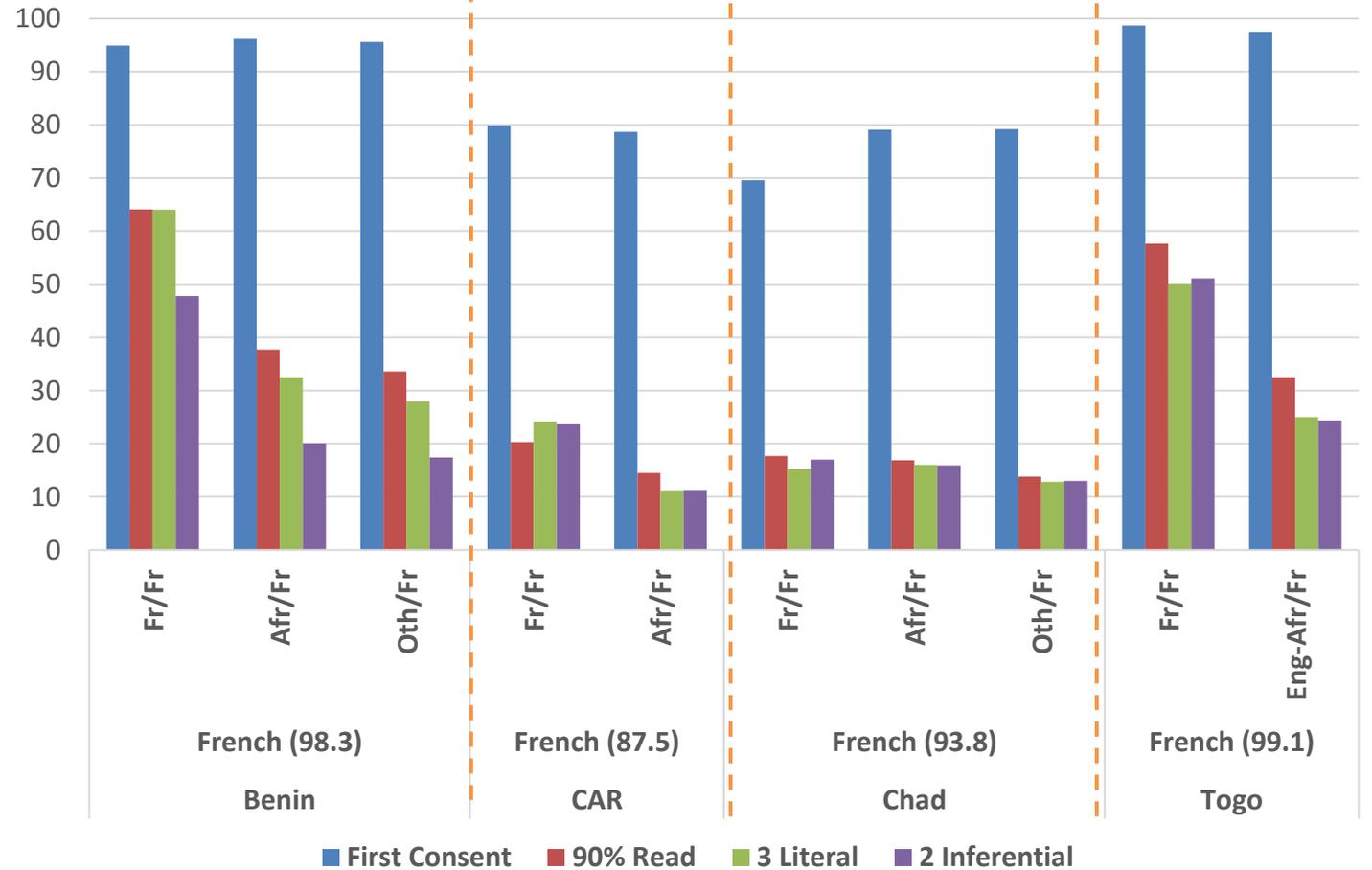
# One *[Colonial]* Text: FLS Consent



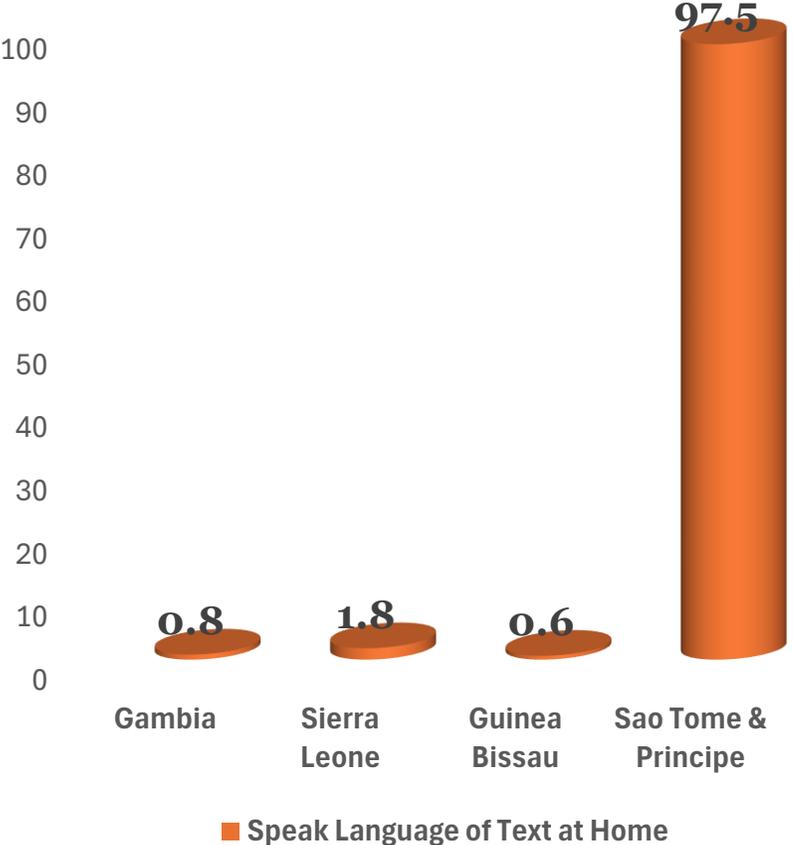
# One School Language [*French*] & One Text



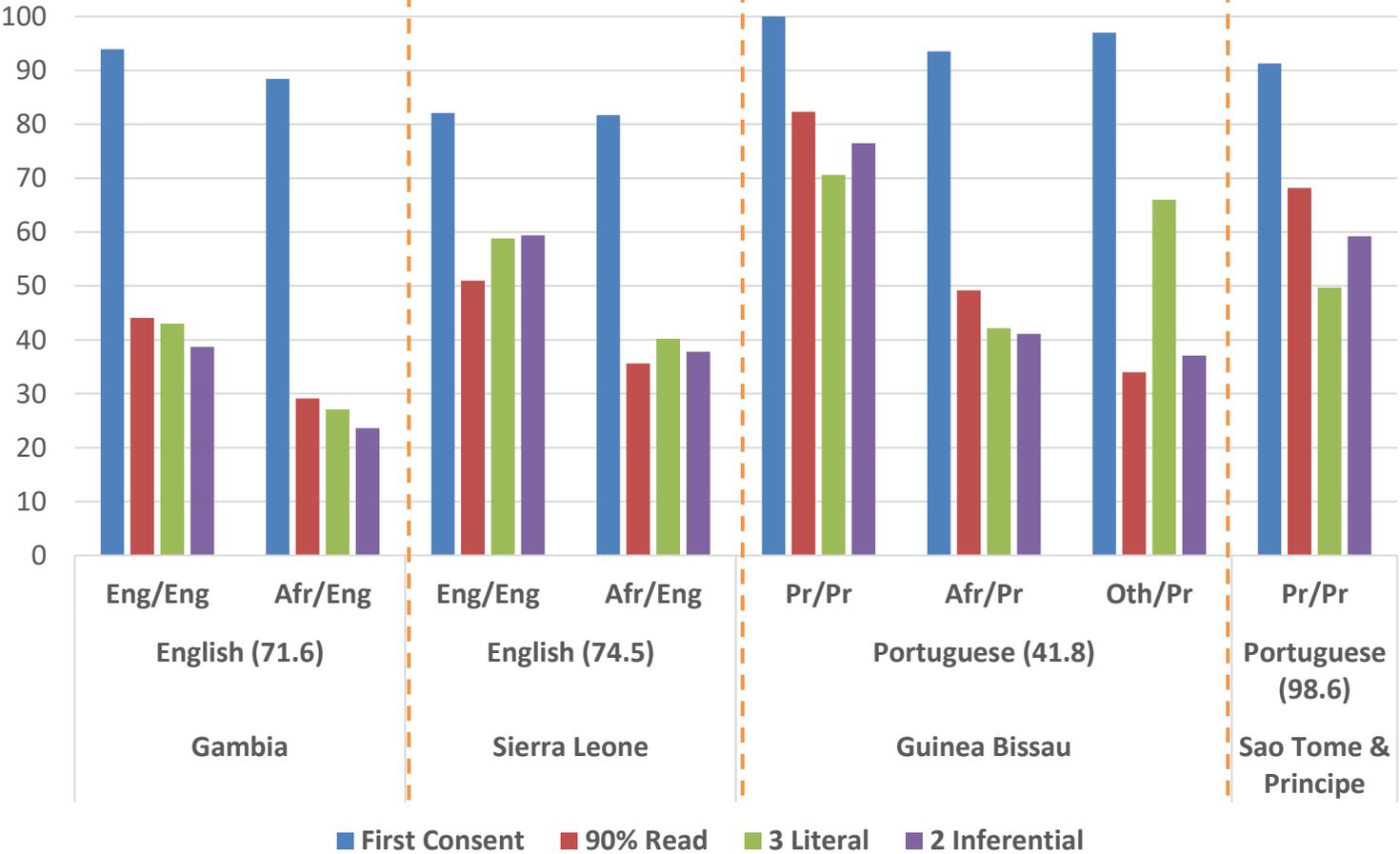
Consent & FRS Measures by Home-School Language



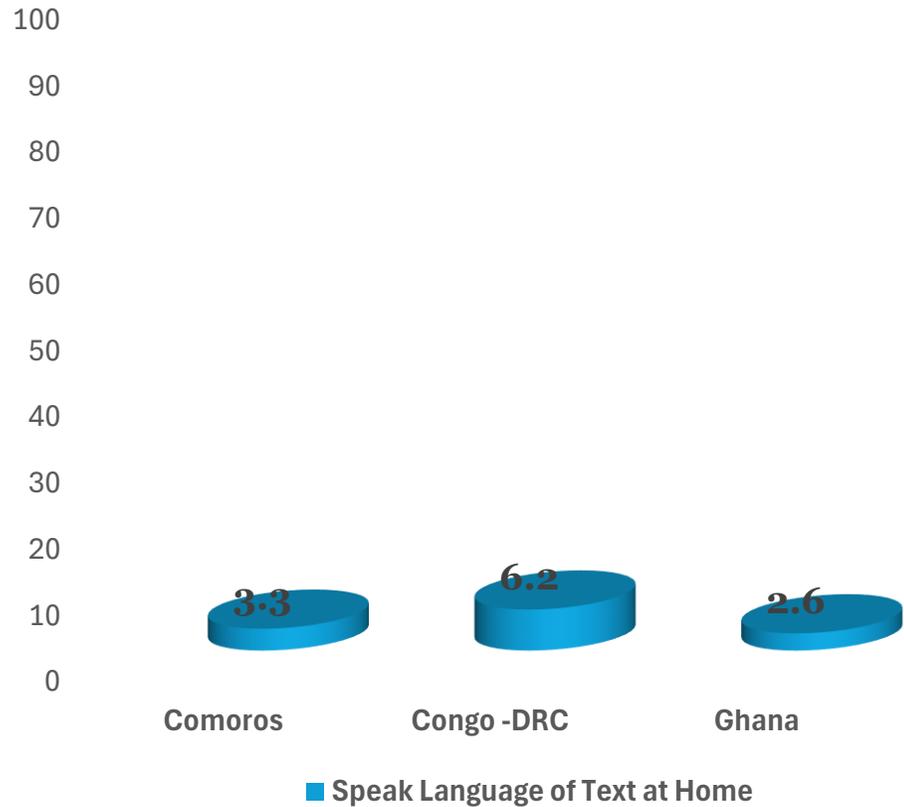
# One School Language [*English/Portuguese*] & One Text



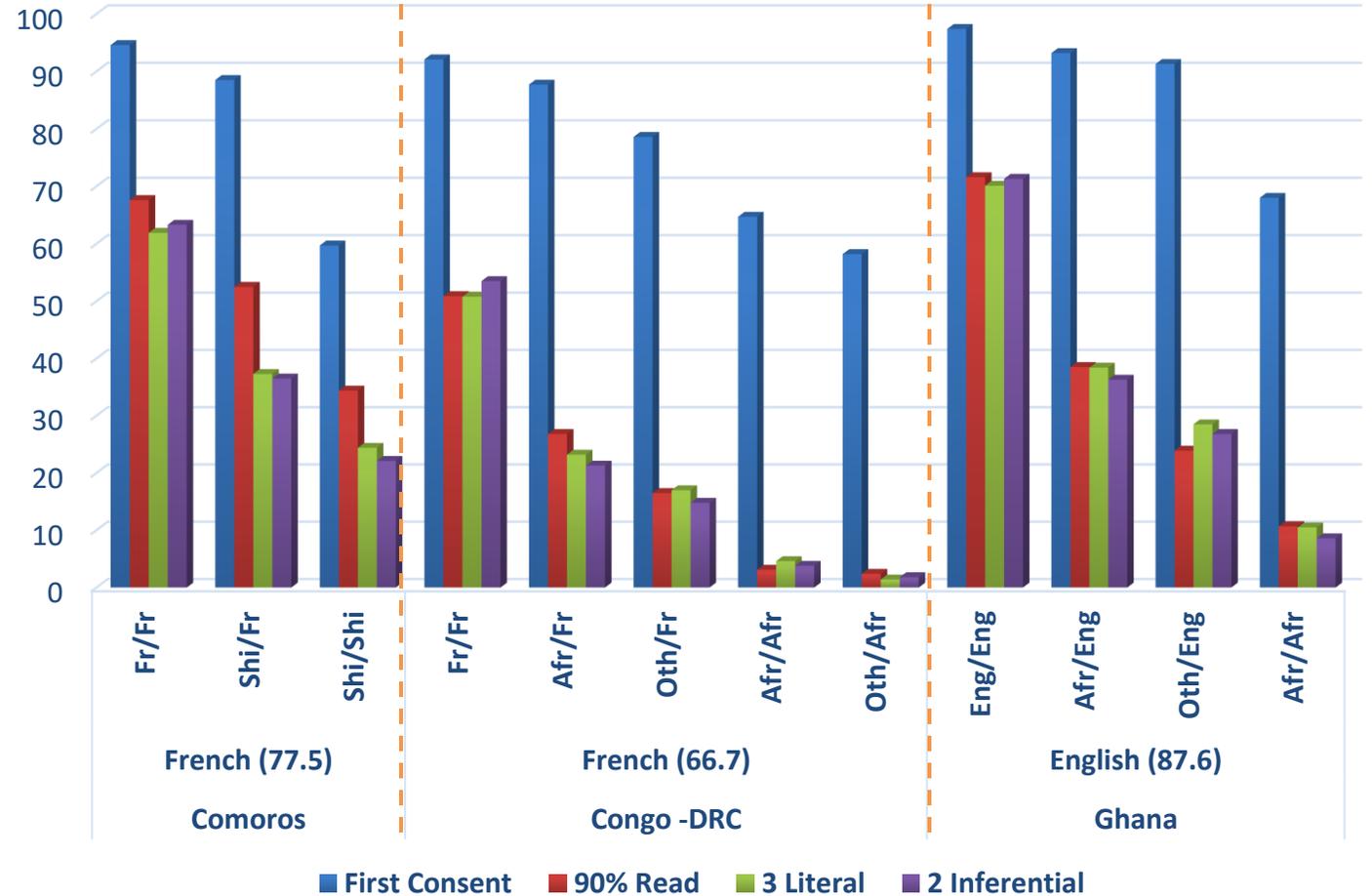
Consent & FRS Measures by Home-School Language



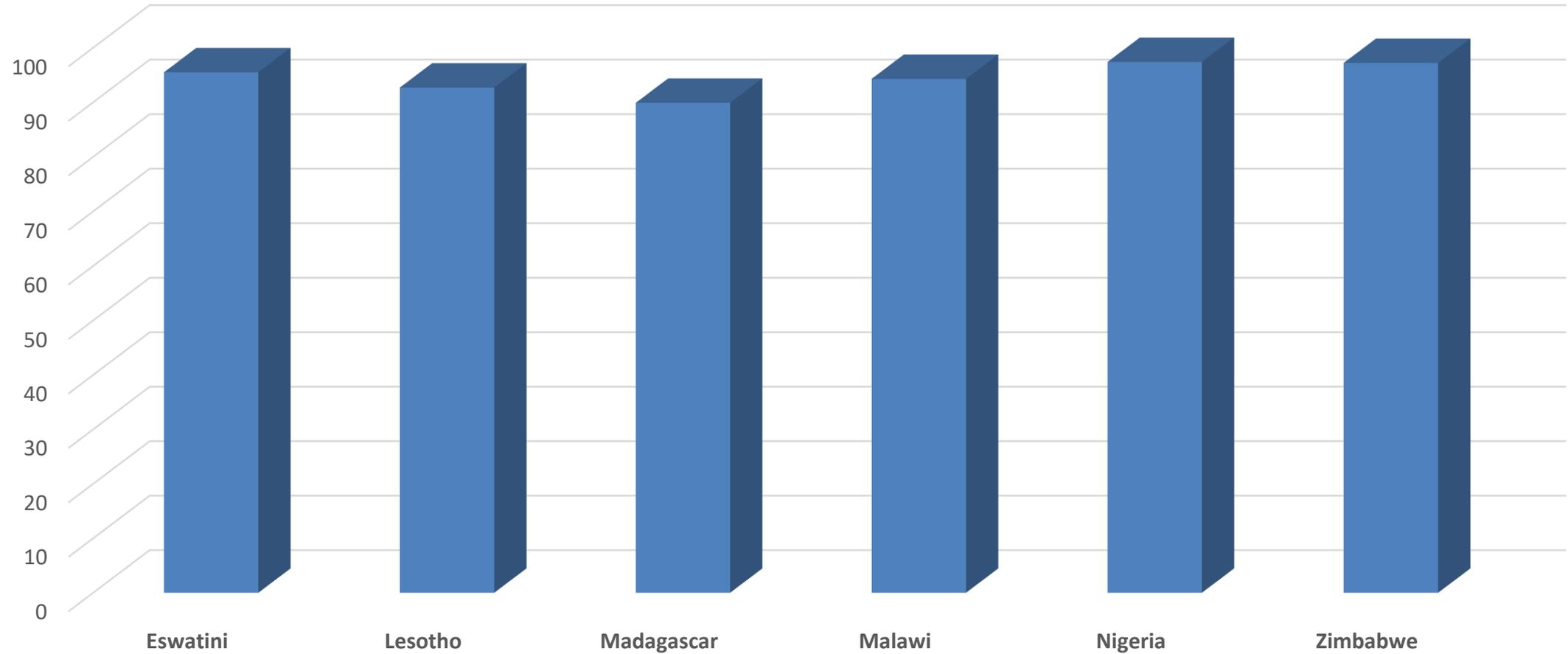
# Two School Languages [*Colonial/African*] & One [*Colonial*] Text



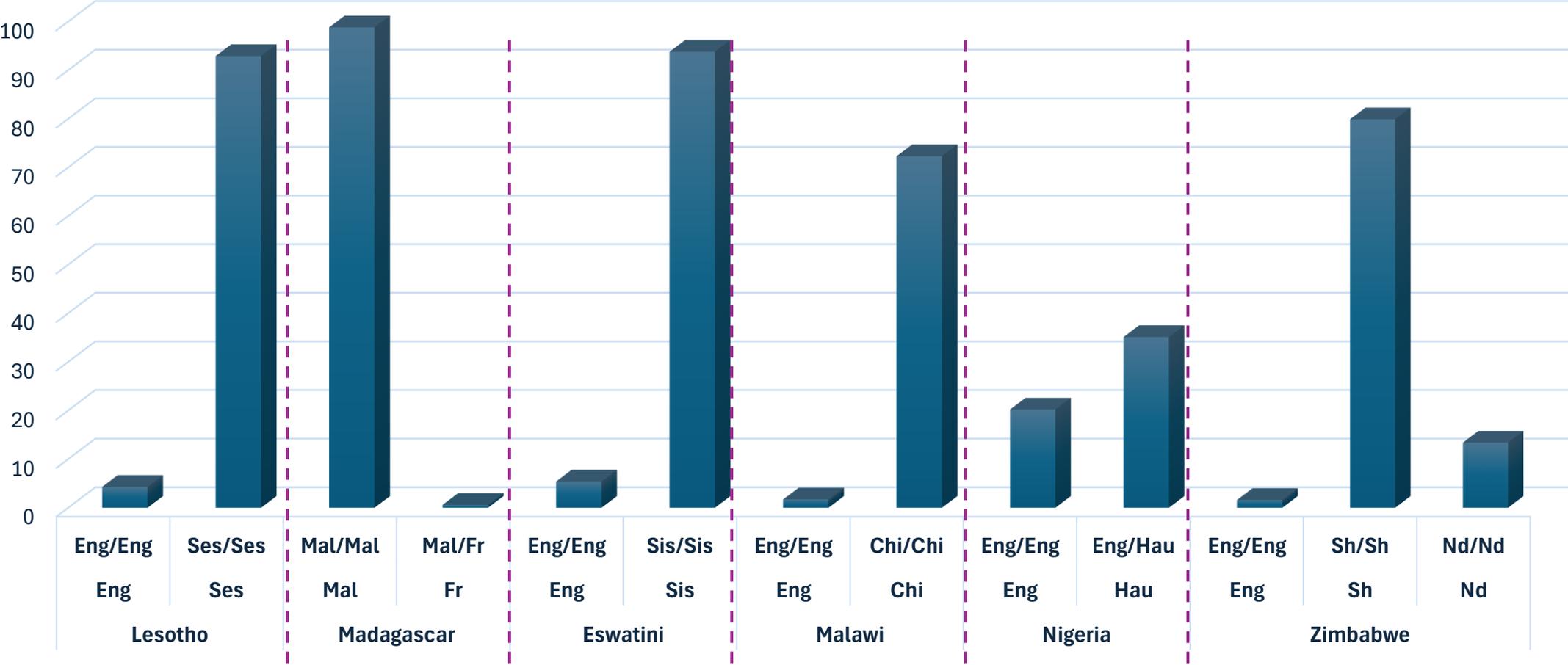
Consent & FRS Measures by Home-School Language



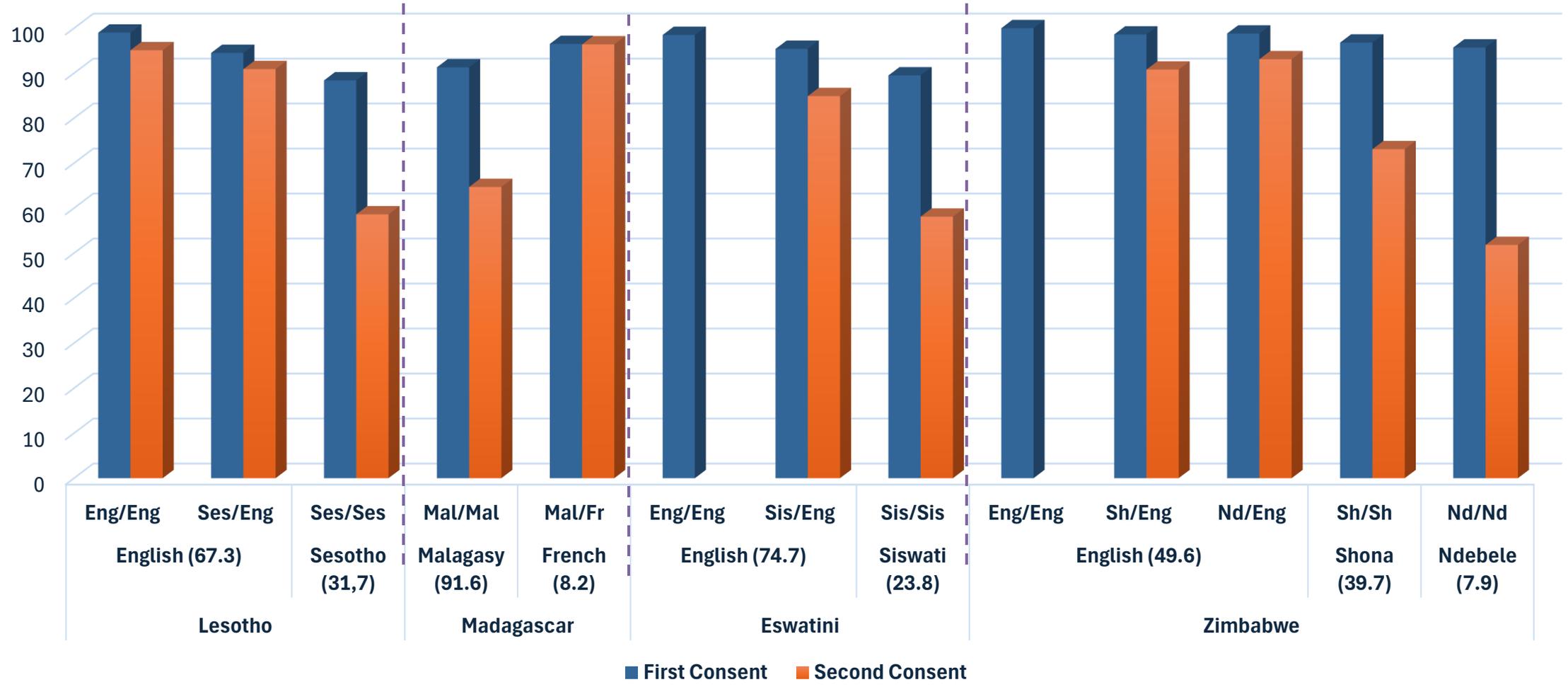
# Two+ School Languages [*Colonial/African*] & Two+ Texts: FLS Consent



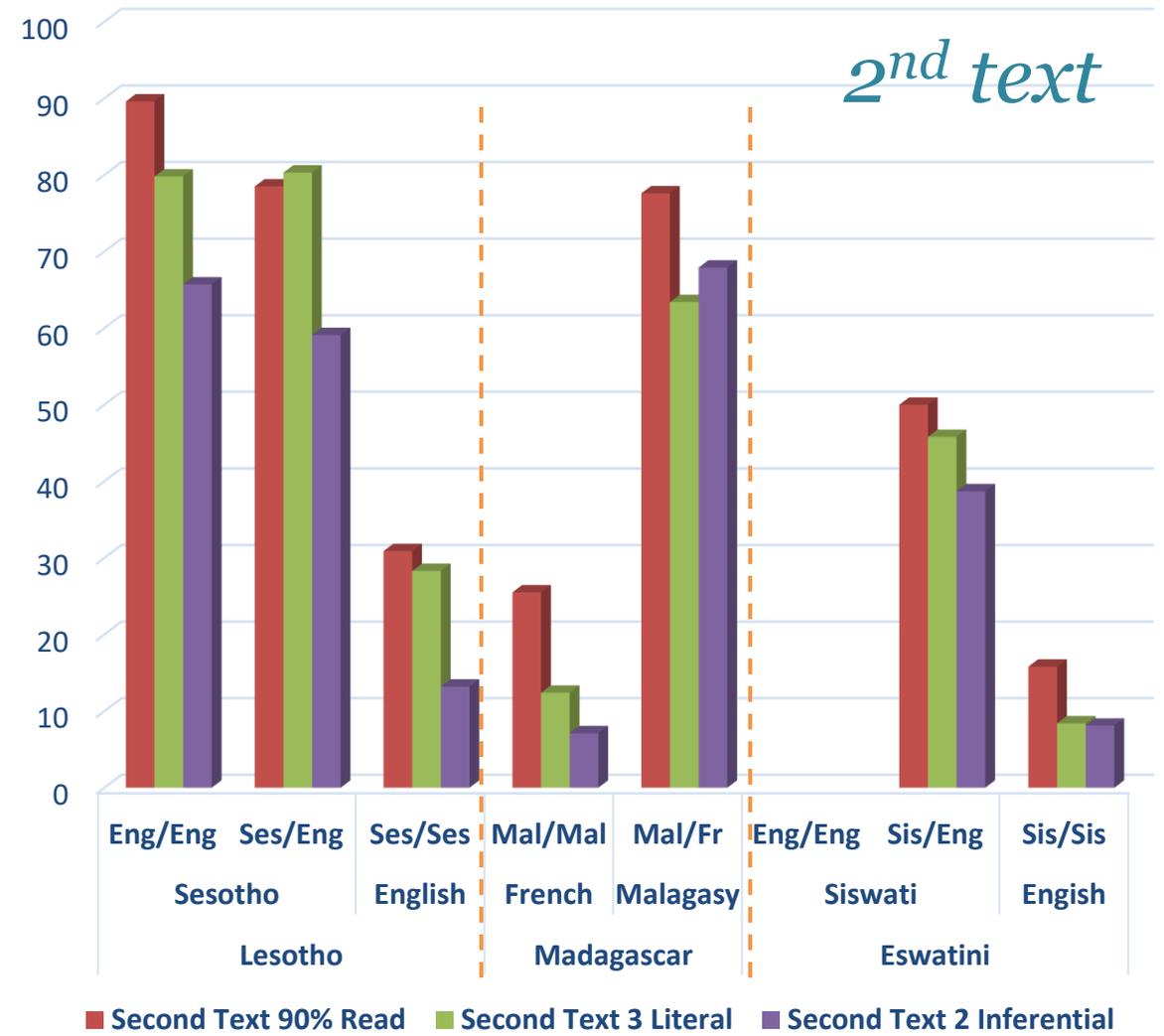
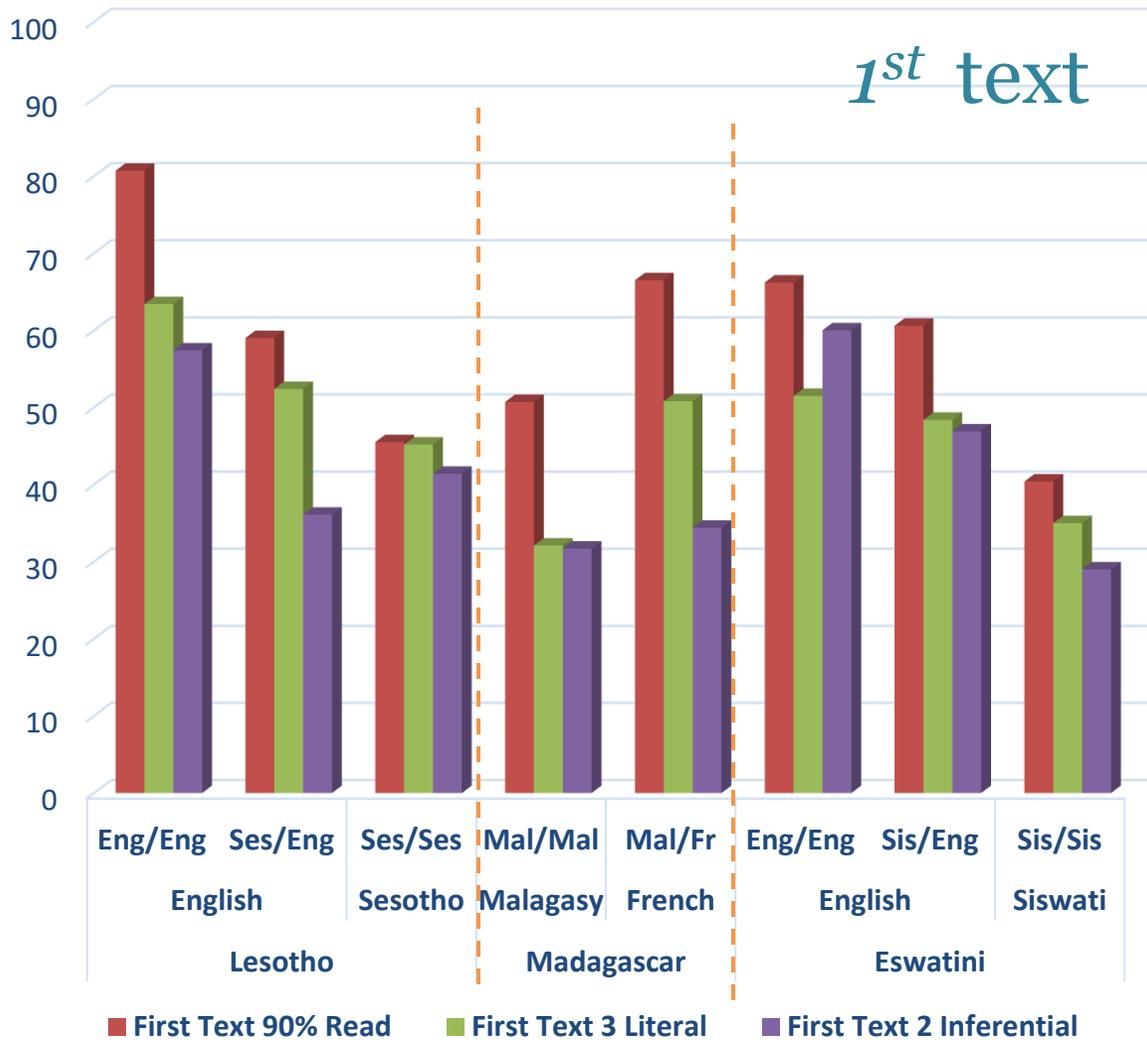
# Home-School Language & Speak Language of the Text at Home



# Two+ School Languages [Colonial/African] & Two+ Texts: Consent by Home-School Language



# Two School Languages [Colonial/African] & Two Texts: FRS by Home-School Language



# **Multivariate Logistic Models**

# Odds Ratios: Child Consent

	Lesotho			Madagascar		
	FLS	First Read Consent	Second Read Consent	FLS	First Read Consent	Second Read Consent
<b>Functional Difficulties</b> [reference = Yes]						
<b>No</b>	<b>1.75*</b>	1.11	0.72	<b>1.37*</b>	1.41	0.99
<b>School Language</b> [reference = African]						
<b>Colonial</b>	-	<b>1.53*</b>	<b>6.93**</b>	-	1.74	<b>7.15**</b>
<b>Child Read Books</b> [reference = No]						
<b>Yes</b>	-	<b>2.31**</b>	<b>1.71**</b>	-	<b>3.25**</b>	<b>2.27**</b>
<b>Age</b> [reference = 7-9]						
<b>10-14</b>	0.84	<b>1.63*</b>	<b>2.29**</b>	0.84	1.13	<b>1.46**</b>
<b>Area of Residence</b> [reference = Urban]						
<b>Rural</b>	0.79	0.71	0.70	0.96	1.03	0.92
<b>Wealth Index</b> [reference = Poorest]						
<b>Second</b>	<b>1.84**</b>	1.28	1.44	1.01	<b>1.54**</b>	<b>1.48**</b>
<b>Middle</b>	1.53	<b>2.26**</b>	<b>2.02**</b>	1.13	<b>2.16**</b>	<b>1.82**</b>
<b>Fourth</b>	1.31	1.20	1.42	1.30	<b>3.27**</b>	<b>3.35**</b>
<b>Richest</b>	1.60	1.87	1.21	0.84	<b>3.38**</b>	<b>8.22**</b>
<b>Sex</b> [reference = Male]						
<b>Female</b>	1.10	<b>1.70**</b>	<b>1.69**</b>	1.14	<b>1.29*</b>	<b>1.18*</b>
<b>Mother Education</b> [reference = none]						
<b>Primary</b>	-	-	-	0.97	<b>1.33*</b>	1.07
<b>Secondary or higher</b>	0.77	<b>1.60*</b>	0.99	0.75	<b>2.08**</b>	1.02

\*\* P-value < 0.01, \* P-value < 0.05

# Odds Ratio: FRS by School Language: Madagascar

	First Text			Second Text		
	Read 90%	3 Literal	2 Inferential	Read 90%	3 Literal	2 Inferential
<b>School Language</b> [reference = Malagasy]						
<b>French</b>	0.71	0.92	<b>0.34**</b>	<b>8.34**</b>	<b>7.40**</b>	<b>19.25**</b>
<b>Child Read Books</b> [reference = No]						
<b>Yes</b>	<b>2.67**</b>	<b>1.84**</b>	<b>1.83**</b>	<b>2.08**</b>	<b>1.45*</b>	1.54
<b>Age</b> [reference = 7-9]						
<b>10-14</b>	<b>11.07**</b>	<b>6.86**</b>	<b>6.64**</b>	<b>11.73**</b>	<b>5.56**</b>	<b>5.42**</b>
<b>Area of Residence</b> [reference = Urban]						
<b>Rural</b>	0.99	1.25	1.03	<b>1.47*</b>	1.05	1.66
<b>Wealth Index</b> [reference = Poorest]						
<b>Second</b>	<b>1.71**</b>	<b>1.72**</b>	<b>1.66**</b>	<b>2.26**</b>	<b>2.23*</b>	2.19
<b>Middle</b>	<b>2.92**</b>	<b>3.00**</b>	<b>2.76**</b>	<b>3.89**</b>	1.62	2.51
<b>Fourth</b>	<b>4.12**</b>	<b>3.94**</b>	<b>3.76**</b>	<b>9.50**</b>	<b>8.36**</b>	<b>8.82**</b>
<b>Richest</b>	<b>11.79**</b>	<b>11.51**</b>	<b>11.19**</b>	<b>39.62**</b>	<b>19.49**</b>	<b>33.74**</b>
<b>Sex</b> [reference = Male]						
<b>Female</b>	<b>1.50**</b>	<b>1.27*</b>	<b>1.32**</b>	<b>1.44**</b>	1.31	1.39
<b>Mother Education</b> [reference = none]						
<b>Primary</b>	<b>1.42**</b>	<b>1.89**</b>	<b>1.82**</b>	<b>1.53*</b>	1.19	1.49
<b>Secondary or higher</b>	<b>2.11**</b>	<b>2.33**</b>	<b>2.79**</b>	<b>1.89**</b>	<b>1.87*</b>	<b>2.63**</b>

\*\* P-value < 0.01, \* P-value < 0.05

# Odds Ratio: FRS by School Language: Lesotho

		First Text			Second Text		
		Read 90%	3 Literal	2 Inferential	Read 90%	3 Literal	2 Inferential
<b>School Language</b> [reference = Sesotho]							
	<b>English</b>	0.85	1.42*	0.73*	10.96**	4.39**	8.09**
<b>Child Read Books</b> [reference = No]							
	<b>Yes</b>	1.54**	1.45**	1.43**	2.22**	1.77**	1.60**
<b>Age</b> [reference = 7-9]							
	<b>10-14</b>	12.05**	10.24**	8.97**	20.05**	11.12**	6.46**
<b>Area of Residence</b> [reference = Urban]							
	<b>Rural</b>	0.83	0.74	0.73	0.84	0.74	0.95
<b>Wealth Index</b> [reference = Poorest]							
	<b>Second</b>	1.36	1.33	1.37	1.58	1.49	1.41
	<b>Middle</b>	1.87**	1.96**	1.43	2.61**	2.47**	2.28**
	<b>Fourth</b>	1.39	1.38	1.64*	2.22**	1.62*	1.68*
	<b>Richest</b>	4.65**	4.18**	3.71**	5.07**	3.28**	3.02**
<b>Sex</b> [reference = Male]							
	<b>Female</b>	2.20**	2.14**	1.90**	3.41**	2.43**	1.85**
<b>Mother Education</b> [reference = none]							
	<b>Primary</b>	--	--	--	--	--	--
	<b>Secondary or higher</b>	1.77**	1.71**	1.49**	1.42	1.35*	1.30

\*\* P-value < 0.01, \* P-value < 0.05

# Odds Ratio: FRS by Home-School Language

Lesotho						
	First Text			Second Text		
	Read 90%	3 Literal	2 Inferential	Read 90%	3 Literal	2 Inferential
<b>School Language</b> [reference = Sesotho-Sesotho]						
<b>English-Sesotho</b>	<b>0.15**</b>	0.20	0.23	0.24	0.35	0.89
<b>Sesotho-English</b>	0.80	<b>1.40*</b>	<b>0.71*</b>	<b>10.76**</b>	<b>4.33**</b>	<b>7.62**</b>
<b>English-English</b>	1.86	1.79	1.48	<b>16.50**</b>	<b>7.00**</b>	<b>18.21**</b>
<b>Child Read Books</b> [reference = No]						
<b>Yes</b>	<b>1.54**</b>	<b>1.45**</b>	<b>1.43**</b>	<b>2.22**</b>	<b>1.77**</b>	<b>1.60**</b>

Controlling for: age, area of residence, wealth index, sex, and mother education

Madagascar						
	First Text			Second Text		
	Read 90%	3 Literal	2 Inferential	Read 90%	3 Literal	2 Inferential
<b>School Language</b> [reference = Malagasy-Malagasy]						
<b>French-Malagasy</b>	0.97	1.19	<b>5.46*</b>	1.37	0.30	--
<b>Malagasy-French</b>	0.70	0.92	<b>0.34**</b>	<b>8.42**</b>	<b>7.65**</b>	<b>19.08**</b>
<b>French-French</b>	1.56	1.22	0.65	<b>6.37**</b>	2.79	<b>35.49**</b>
<b>Child Read Books</b> [reference = No]						
<b>Yes</b>	<b>2.67**</b>	<b>1.84**</b>	<b>1.83**</b>	<b>2.11**</b>	<b>1.51*</b>	<b>1.62*</b>

Controlling for: age, area of residence, wealth index, sex, and mother education

\*\* P-value < 0.01, \* P-value < 0.05

# Conclusion & Future Direction



- ❖ **Continue Multivariate Analysis.**
- ❖ **Home-Language: First & Second Texts.**
- ❖ **Quality of Education Measures.**
- ❖ **Publish Research Findings !!!**



**THANK YOU  
FOR  
YOUR ATTENTION**

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