

# Multilingualism in underprivileged contexts: language and cognitive skills of primary school children in India

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### Aims of the talk

- To discuss the benefits and challenges of *multilingualism* and *linguistic diversity* on language and literacy skills of child learners from a socioeconomically underprivileged context.
- To raise some questions about what quantity and quality of input may refer to.

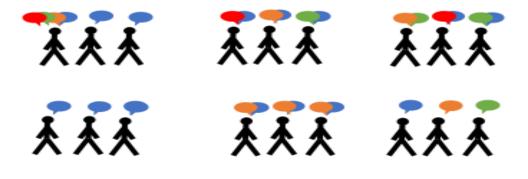


#### Multilingualism and English L2 in the Global North

- Studies on child multilingualism in **western societies** consider quantity and quality of input, SES (parental education) and individual differences.
- Educational provision and societal welfare and support are usually good.
- However, linguistic diversity in the society (<u>Contextual Linguistic Diversity</u>; Wigdorowitz, Pérez & Tsimpli, 2021) is usually low or ignored in these studies.

#### Measuring diversity

In all the examples below there is linguistic diversity within the same size population (N=3), but the nature of linguistic diversity varies.







Multilingualism and Multiliteracy: Raising Learning Outcomes in challenging contexts in primary schools across India (May 2016 – July 2020)



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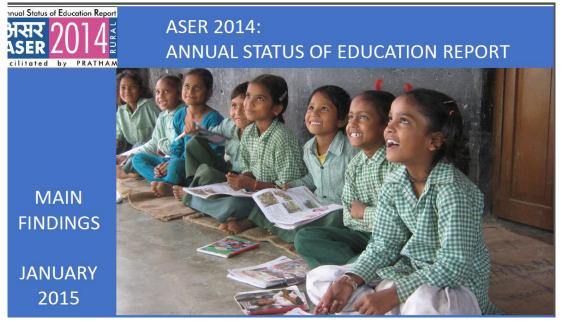
#### **Background 1: Linguistic diversity in India**

- Multilingualism is the norm.
- One of the most linguistically diverse countries in the world (Linguistic Diversity Index; UNESCO (2009)).
- 22 official ('scheduled') languages recognised by the constitution; 462 different languages spoken in the country (Simons & Fennig, 2018)
- Primary level classrooms highly multilingual due to high levels of internal migration particularly in urban areas (Census of India 2011 as cited in Educational Statistics 2016; Mahapatro 2012; Malhotra & Devi 2016)



# Background 2: Low learning outcomes in primary schools in India

- <u>Annual Status of Education Report (ASER)</u> by NGO <u>PRATHAM</u> regularly reports underperformance: more than half of all children in Year 5 could not read a Year 2 level text fluently, and nearly half of them could not solve Year 2 level subtraction task.
- Low literacy and numeracy can limit critical thinking and problem solving; also dropping out of school
- High dropout rate in schools affecting girls more than boys (Unesco's Education Report, 2015; ASER/Pratham, 2014).



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#### The MultiLiLa project





Focus on the languages of the learner and their family, the school and the community



#### The medium of instruction in schools

- Private schools (high- or low-cost) promise English-medium instruction (English textbooks, English assessment, English as the language of teaching); government schools wish to compete and offer English-medium instruction (EMI)
- Is this the right way to go?

- The **double-divide** arising from medium of instruction (Mohanty, 2019):
- English vs. Regional languages (Hindi, Telugu, Tamil, Kannada etc)
- Regional languages vs. Minority languages (Lambadi, Bhojpuri, Tulu, Nagpuria, Magahi etc).



#### Other 'realities' of education in India

- Large class sizes, poor resources and teacher-centered pedagogies (Brinkmann 2015)
- Critical thinking not prioritised (Dyer and Choksi, 2002),
- Limited creativity or expression of independent thought (Jambunathan, 2005).
- Overage children: positive and negative effects (Alcott & Rose, 2017)



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#### Our fieldwork: Delhi, Hyderabad and Patna

**Delhi** is the capital of India, highly urban, <u>Hindi</u> is the majority language as well as one of the 'link languages' in India. Schools can be <u>English- or</u> <u>Hindi-medium.</u>

**Hyderabad** is the capital of a southern state (Telangana), urban too, but higher numbers of poor population than Delhi; <u>Telugu</u> is the majority language. Schools can be <u>English- or Telugu-medium.</u>

**Patna** is the capital of Bihar, one of the most disadvantaged states in India. <u>Hindi</u> is the regional language, very poor population, more rural than urban even in the capital. <u>Hindi-medium</u> only.





#### Longitudinal and cross-sectional design



Delhi		Hyderabad		Patna			
Phase I (Year 4)	N=400	Phase I (Year 4)	N=400	Year 4 and	N=900		
Phase II (Year 5)	N=400	Phase II (Year 5)	N=400	Year 5			
Total	800	Total	800	Total	900		
Total = 2500 participants							

 No. of tasks performed by each child (literacy, narratives, numeracy, mathematical reasoning, cognitive tasks)= 14 (excluding questionnaires)

Total number of data points = 35000



#### Today's questions

- How are children's **language skills** affected by multilingualism, linguistic diversity and by medium of instruction?
- A. Literacy skills (Decoding and reading comprehension)
- B. Reading vs. Listening comprehension skills
- C. Narrative microstructure in L2 English focusing on finiteness









#### A. Literacy: Decoding and Reading Comprehension

#### Effects of:

- Medium of Instruction
- Minority language speakers
- City/site





Delhi





Patna

Vogelzang, Balasubramanian, Tsimpli, Panda, Alladi, Reddy, Mukhopadhyay, Treffers-Daller & Marinis (under review)

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#### **Participants**



- 1272 children from Delhi, Patna and Hyderabad all from disadvantaged backgrounds (low SES).
- Government primary schools -- Year 4.

Location	Age range (Mean Age)	Multilingualism in the home	Minority language in the home	
<b>Delhi</b>	8-12 years	64% monolingual,	82% majority,	
<i>N=387</i>	(8.77)	36% bi/multilingual	18% minority	
Patna	7-15 years	70% monolingual,	97% majority,	
N=424	(9.35)	30% bi/multilingual	3% minority	
Hyderabad	7-15 years	55% monolingual,	70% majority,	
N=461	(9.58)	45% bi/multilingual	30% minority	

- 265 children were minority language speakers (Bihari, Bhojpuri, Haryanvi, Nepali, Pahari, Punjabi, and Rajasthani).
- 2. These children are educated in a language they don't speak at home.



## Letter naming, single word reading, reading of sentences, reading of passages and comprehension questions.

• Administered in the regional language (Hindi or Telugu) and in English.

		Word
ring		sun
	ball	
cold		king
clap		foot
	fan	
girl		crow

A big tree stood in a garden. It was alone and lonely. One day a bird came and sat on it. The bird held a seed in its beak. It dropped the seed near the tree. A small plant grew there. Soon there was another tree. The big tree was happy.

**Example question:** How did the small plant grow near the tree?



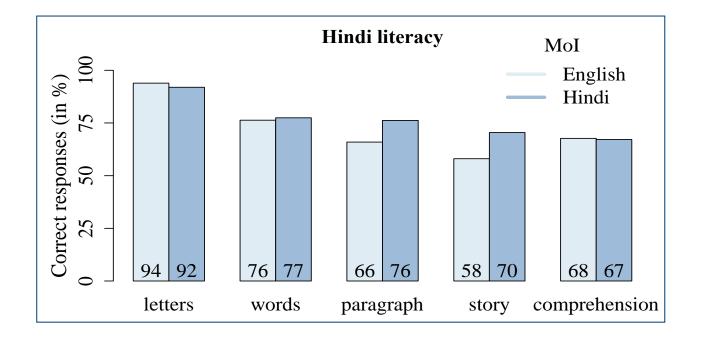
#### Literacy tool

• ASER (Basic literacy – <u>www.asercentre.org</u>):



#### Literacy in Hindi in English-medium and Hindi-medium schools





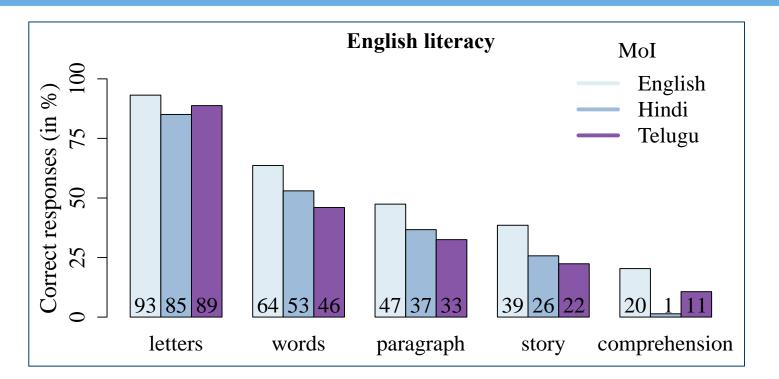
In both Mols, high scores on letter reading with performance decreasing with increasing level of difficulty (lowest performance on story reading).

 Effect of MoI: Hindi MoI > English MoI on story reading; <u>no significant difference in reading</u> <u>comprehension</u>



#### Literacy in English

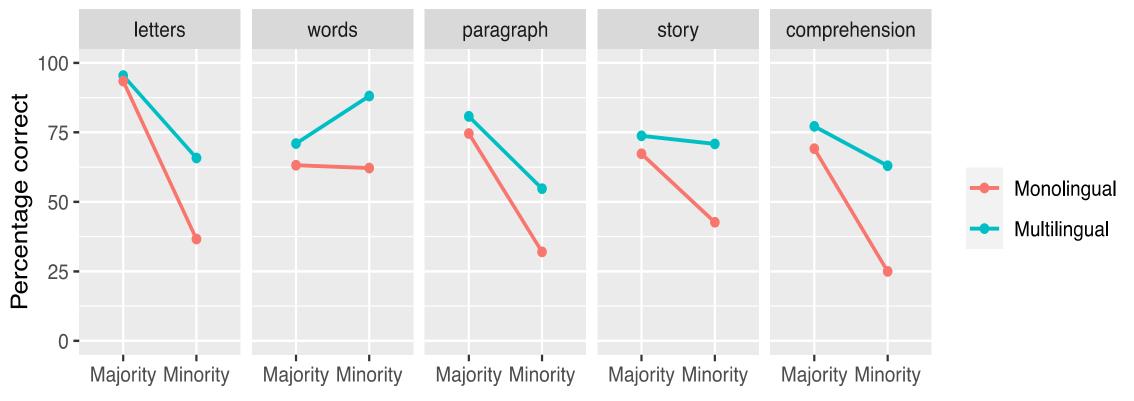




Overall, performance decreasing with increasing level of difficulty; children poorer on reading comprehension compared to decoding (rote-learning; Smith et al 2005; Clarke 2001).

• English Mol > Telugu Mol > Hindi Mol in reading comprehension.

## Literacy performance in the regional language: interaction between speaking a minority language and household type







- The majority of children who read the text in regional language were also able to answer the reading comprehension questions.
- When text matched the MoI, children performed better.
- Multilingualism helps with literacy skills.
- Minority language children are at a disadvantage if this is the only language they speak at home.



#### B. Reading vs. listening (narrative) comprehension skills

- Strong links between oral language and literacy skills (Gough and Tunmer 1986, Tunmer & Hoover, 2019);
- Good narrative competence linked to later academic achievement in reading and writing (Wellman et al. 2011, Klopp 2011).
- Babayiğit et al (2021)→ linguistic comprehension and narrative production contribute *independently* to later reading ability.





# Cat story / Dog Story (Multilingual Assessment Instrument for Narratives; Gagarina et al, 2012, 2019)





Stories presented in the school's medium of instruction, i.e. English, Hindi or Telugu.



#### **English Narrative – Example**

	Child ID: 221104BMVS; Gender: Male; Year 4	
	Text length: 64	Number of Verb Clauses
1	Cat is came and tree butterfly there.	1
2	Cat is taking that butterfly.	1
3	Butterfly cat is jumping tree and butterfly going.	2
ŀ	One boy is came.	1
,	Cat is tree is that's boy is ball going that's water.	2
)	Boy is feeling, "my ball is going."	2
,	Cat is fish eating.	1
	Boy is ball taking.	1
	Fish is there.	1
0	Fish, fish cat eating.	1
1	Boy is left.	1
2	Cat is eating fish.	1



#### Hindi Narrative – Example

	Child ID: 12134AFSK; Gender: Female; Year 4	
	Text length: 51	Number of Verbs/ Clauses
1	mujhe kaha ke billi he na <mark>butterfly</mark> ko pakadegi	2
	me say PAST that cat is CO.BE (expression) butterfly to catch FUT.F.SG	
	The cat will catch the butterfly.	
2	phir ye <mark>butterfly</mark> udd gai	1
	then this butterfly fly go PAST.F.SG	
	Then this butterfly flew away.	
3	phir ye ladke billi phaans gai thi uske andar	1
	then this boys cat trap PAST.M.SG it inside	
	then this boys was trapped inside it.	
4	phir ladka billi ko bachana tha phir ball uski haath se gir ke paani me chali gai	3
	then boy cat to save PAST.M.SG then ball his hand from fall PAST water into go PAST.F.SG	
	Then boy had to save the cat, then the ball slipped from his hands and went into the water.	
5	phir wah udaas ho gaya ki meri <mark>ball</mark> isme chali gai	2
	then he sad was PAST.M.SG that my ball in this go PAST.F.SG	
	Then he became sad that my ball went into this.	
	CAMBRIDGE	

#### **Narrative comprehension questions**

- Why does the dog leap/jump forward?
- Why do you think that the dog feels angry/ disappointed/ hurt, etc
- Why is the dog grabbing the meat?
- Imagine that the boy sees the dog. How does the boy feel?
- Why do you think that the boy is feeling bad?

• 10 comprehension questions per story, asked after the child had listened to the story and retold it (in the same language or in Hindi/Telugu).



## Participants: Bi/multilingual Children in Phase I and Phase II (Delhi)



Phases			Geno	Gender		Medium of instruction	
-	Age range	Mean Age (SD)	Boys	Girls	English	Hindi	
Phase I: Year 4 (n=387)	8-12	8.78(0.63)	194 (50%)	193 (50%)	308 (80%)	79 (20%)	
Phase II: Year 5 (n=341)	9-13	9.77(0.64)	171 (50%)	170 (50%)	275 (81%)	66 (19%)	

- There was some attrition from Year 4 to Year 5.
  - Reading comprehension data is available for 336 children at the two time points.
  - Narrative comprehension data is available for 267 children at two time points.



## Participants: Bi/multilingual Children in Phase I and Phase II (Hyderabad)

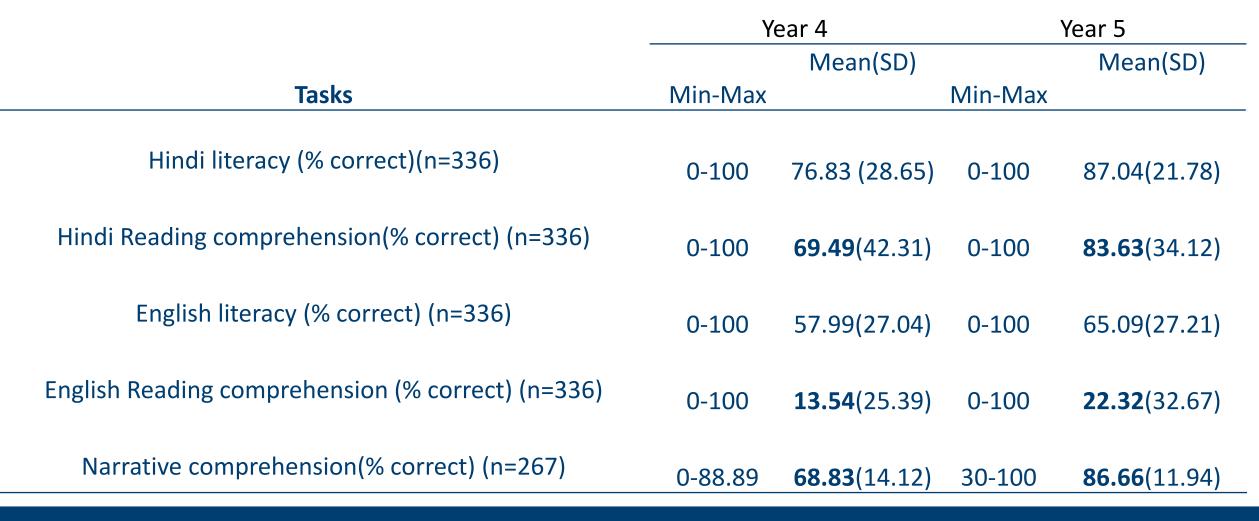


Phases	Phases		Geno	der	Medium of instruction	
	Age range	Mean Age (SD)	Boys	Girls	English	Telugu
Year 4 (n=461)	7-15	9.57(1.19)	206 (45%)	255 (55%)	175 (38%)	286 (62%)
Year 5 (n=319)	9-16	10.53 (1.18)	142 (55%)	177 (45%)	115 (36%)	204 (64%)

- There was considerably more attrition in Hyderabad than in Delhi from Std IV to Std V .
  - Reading comprehension data is available for 306 children at two time points.
  - Narrative comprehension data is available for 300 children at two time points.



#### **Results (Delhi) / 80% of children in EMI schools**



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#### Results (Hyderabad)/ 38% of children in EMI schools

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	Year 4		Ň	Year 5
Tasks	Min-Max	Mean(SD)	Min-Max	Mean(SD)
Telugu literacy (% correct)(n=208)	0-100	71.67 (32.58)	0-100	71.27(29.84)
English literacy (% correct) (n=306)	0-100	60.96(27.43)	0-100	69.01(27.84)
English Reading comprehension (% correct) (n=306)	0-100	<b>19.93</b> (38.34)	0-100	<b>19.11</b> (36.01)
Narrative comprehension (% correct) (n=300)	0-100	<b>96.23</b> (10.12)	10-100	<b>96.10</b> (9.66)

\* Note- Only children in Telugu medium schools were tested in ASER (Telugu) task. Note that there are no results from reading comprehension in Telugu.



#### **Correlations between reading and narrative comprehension (Delhi)**

	Reading Comp_PI (Eng)	Reading Comp_PI (Hindi)	Reading Comp_PII (Eng)	Reading Comp_PII (Hindi)	Narrative Comp_PI	Narrative Comp_PII	_	
Reading Comp_PI (Eng)	1							There are only <b>weak</b>
Reading Comp_PI (Hindi)	0.31**	1					k	significant correlations petween narrative
Reading Comp_PII (Eng)	0.29**	0.41**	1				(	comprehension and reading comprehension (English and Hindi)
Reading Comp_PII (Hindi)	0.2*	0.56***	0.36**	1				
Narrative Comp_PI	0.13*		0.18*	0.16*	1			
Narrative Comp_PII	0.12*	0.21**		0.16*	0.15*	1		



# **Correlations between reading comprehension and narrative comprehension (Hyderabad)- English Mol**

Reading	Reading	Narrative	Narrative
Comp_PI	Comp_PII	Comp_PI	Comp_PII
(Eng)	(Eng)	(Eng)	(Eng)

Reading Comp\_PI 1 (Eng)

Reading Comp_PII (Eng)	0.42**	1		
Narrative Comp_PI (Eng)	0.22*	0.22	1	
Narrative Comp_PII (Eng)	0.22*		0.36**	1

 There is a weak significant correlation between English reading <u>comprehension in Year 4 and English</u> <u>narrative comprehension in Year</u> <u>5(r=0.22).</u>



PI - Phase I: Std IV PII- Phase II: Std V



- The link between listening and reading comprehension is weak
- Listening comprehension is very good

Why?

• Multilingualism and linguistic diversity are ubiquitous in India and primarily expressed as *oral* language skills for Indian speakers, particularly children.

 $\rightarrow$  We need to consider *contextual linguistic diversity* (Wigdorowitz, Perez & Tsimpli 2021) as an important factor in evaluating the validity of the link between oral and written language in different parts of the world.



## **C. Microstructure in L2 English narratives focusing on** <u>finiteness</u> (Tsimpli et al, in press)

- Finiteness marking in L2 English (Gavruseva, 2008; White, 2008) or in atypical English as L1 (Rice & Wexler 2001; Paradis 2011): vulnerable domain.
- Bound morphology vs. free morphemes marking finiteness features: asymmetry in early L2 English
- Child L2 learners of English from different L1 backgrounds show low accuracy in verbal morphology, very high omission rates, and some commission errors. (Li 2012; Paradis et al 2008; Ionin & Wexler 2002)
- Children overuse 'be' in contexts where it is followed by a bare verb form although the meanings of this overgeneralized form vary.
- Ionin & Wexler (2002): the 'BE+bare main verb' form was used in contexts appropriate for the
  progressive, the generic, the stative, the past and the future, indicating that it should not be analysed as
  an incorrect progressive form.



#### Later stages in child L2 English

- Some differences among previous studies
- Longer exposure to English (5<) and different ages of arrival to the English-speaking immersion environment: only a third of the children had mastered the 3SG -s, fewer than half had mastered past irregular and no child mastered past regular (Jia & Fuse, 2007)
- Paradis et al. (2016): AoO effects on English L2 verb morphology by Chinese speaking children: after 6 years of exposure, 13/18 children reached monolingual standards on 3SG -s and 15 children had acquired past tense, while individual variation was found in the children's acquisition of verb morphology for the relevant features.
- Vocabulary size, richness of English input outside the school and allomorph type (-s, -z, -iz) were significant predictors of performance on third person singular marking.
- Subject-verb agreement marking # acquisition of BE



#### **BE + main verb**

- Overuse of 'be + main verb' structure with or without inflection on the main verb is common to all studies.
- Attested in the early stages of L2 English regardless of the properties of the L1 (Paradis et al (2008) with learners from different L1s; García Mayo et al. (2005), Spanish learners; a.o.)
- Not a case of incorrect production of the progressive → it raises the question of the role of BE in early stages of L2 English (Hawkins & Casillas, 2008).



#### Preliminary analyses of a sub-set of narrative data

		Gender				
City	Age range	Mean Age (SD)	Boys	Girls		
Delhi: Year 4 (n=30)	8-9	8.67(0.47)	10	20		
Hyderabad: Year 5 (n=33)	8-9	8.72(0.45)	14	19		

- All the children attend EMI schools
- However, children in Delhi preferred to re-tell the story in Hindi while the children from Hyderabad re-told the story in English.



	Text l	ength	Number of (verbs) clauses		
-	Min-Max	Mean(SD)	Min-Max	Mean(SD)	
Hindi (n=30)	20-154	82.46 (32.76)	5-35	14.70 (5.85)	
English (n=33)	16-241	59.60 (41.87)	2-36	9.36 (6.85)	

• Longer narratives in Hindi than in English.



#### Measures of syntactic complexity at the morpheme/word level

	F	lindi	English					
Syntactic Complexity	Min-max	Mean (SD)	Min-max	Mean (SD)				
Number of Function words								
	0-95	47.96(23.20)	4-114	23.39(20.64)				
Proportion of Function words/Text length	0-0.72	0.57(0.12)	0.13-0.62	0.37(0.10)				
Number of <b>Content</b> words	9-59	32.43(11.96)	10-127	36.21(22.96)				
Proportion of Content words/Text length								
	0.29-0.54	0.40(0.04)	0.37-0.86	0.62(0.10)				



## Syntactic complexity at the sentence level

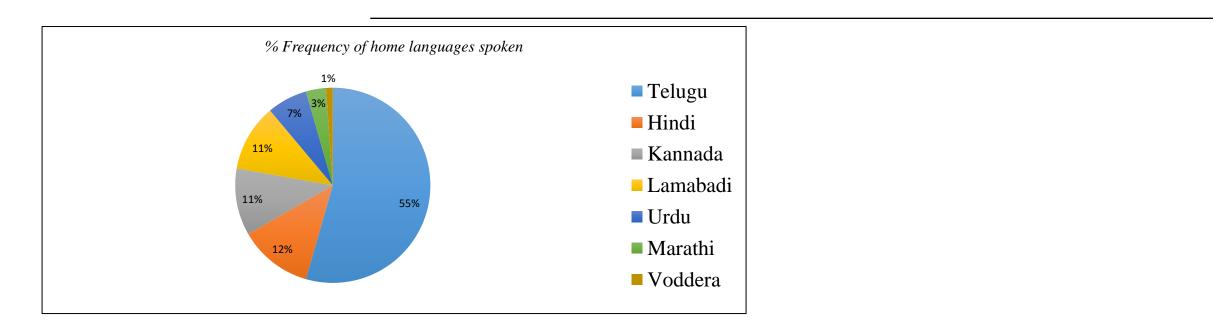
	Hi	ndi	English				
	Min-max	Min-max Mean (SD)		Mean (SD			
Syntactic complexity							
Simple sentences	2-14	7.93(2.81)	2-19	6.15(3.46)			
Simple sentences/Verb clauses	0.30-0.83	0.56(0.15)	0.25-1	0.76(0.23)			
Complex sentences	1-21	<b>6.70</b> (4.20)	0-12	<b>1.5</b> (2.38)			
Complex sentences/Verb clauses							
	0.16-0.72	0.43(0.15)	0-0.33	0.10(0.12)			

z = 4.05, p<0.001) in English but no significant effects on any of the other microstructure properties of oral narratives



# Finiteness in English L2: narrative data from 90 children

Site	Grades	Boys	Girls	Total	Age Mean(SD)	Age range
Slum n=61	Year 4	14	24	38	9.93 (1.17)	8-10
	Year 5	09	14	23	10.05 (1.08)	9-12
Non-slum n=29	Year 5	14	15	29	9.6 (0.95)	8-10



### A note on English input in EMI classrooms



- The percentage of English input in the classroom showed a significant positive effect on Complex sentences (β = 0.09, z = 4.05, p<0.001) in English but no significant effects on any of the other microstructure properties of oral narratives
- English develops almost exclusively based on classroom input (no English at home or in the community for these low SES children)
- → Possible to measure input in the classroom and consider its role in L2 English development

Lightfoot, A. A. Balasubramanian, I. Tsimpli, L. Mukhopadhyay & J. Treffers-Daller (2021) Measuring the multilingual reality: lessons from classrooms in Delhi and Hyderabad. *International Journal of Bilingual Education and Bilingualism.* DOI: 10.1080/13670050.2021.1899123



### **Observation tool: language input measure**

#### Section 3: Observation of Teacher Activity and Child Response:

[Please write one or more codes, where relevant. For example: A child may be listening and then repeating so in 3.3 insert codes 1 + 3)

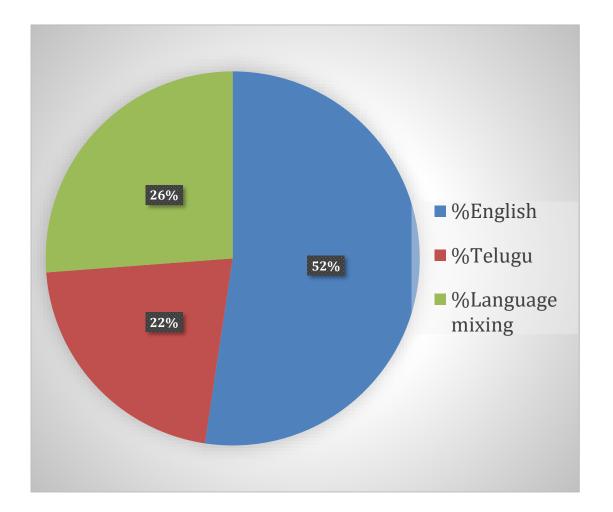
Teacher activity codes:		Children's response codes:	Language Codes				
<ul> <li>1= Reading aloud</li> <li>2= Verbal instruction</li> <li>3= Telling a story</li> <li>4= Writing on board</li> <li>5= Demonstrating</li> <li>6= Asking questions</li> <li>7= Showing/talking about audio/video</li> <li>8= Maths exercises</li> </ul>	<ul> <li>9= Problem solving exercises</li> <li>10= Giving oral feedback</li> <li>11= Experimentation</li> <li>12= Marking papers/work completed</li> <li>13= Taking dictation</li> <li>14= Off-task</li> <li>15= Classroom management/discipline</li> <li>16= Reviewing or Summarising previous lesson</li> <li>88= Other (specify)</li> </ul>	1=Listening 2=Individual speaking 3= Repeating/choral response 4= Writing 5= Copying text 6=Reading 7=Reading aloud as a class	8= Calculating 9= Asking for clarification 10= Problem-solving 11= demonstrating 12= Uninvolved 88= Other (specify)	1= Bhojpuri 2= Haryanvi 3= Hindi 4= Magahi 5= Maithali 6= Punjab	7= Telugu 8= Urdu 9= English 10= Translanguaging 88= Other (specify)		

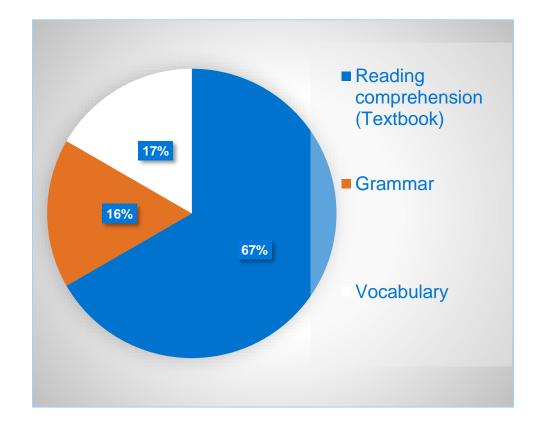
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Teacher	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
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# **English input in these EMI schools**





### Categories of finiteness and error types

Use of correct finiteness	Errors				
Use of auxiliary [BE]	(i) [+BE], [-prog]				
	e.g. 'he is catch the butterfly'				
Use of copula [BE]	(ii) [-BE], [+prog]				
	e.g. 'he eating fish'				
Correct finiteness	(iii) [+Other verb, +wrong				
i. [+Copula BE, + Complement]	morpheme /ed/]				
ii.[+Aux BE], [+ prog]	e.g. 'the dog was stucked in the				
iii. [+other verb, + correct tense morphology]	tree'				
	(iv) Bare verbs used (BV)				
	e.g. 'the dog run'				



#### Accuracy and error rates

Finiteness	Min-Max	Mean(SD)
Correct finiteness		
	0-23	4.80 (4.24)
Correct Finiteness%		
	0-100	<b>46.77</b> (27.16)
Finiteness errors		
	0-20	4.68 (3.82)
Finiteness error (%)		
	0-100	<b>51.85</b> (27.05)

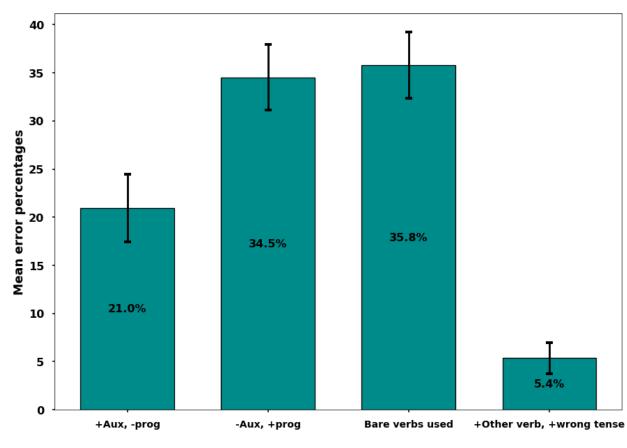


#### Finiteness marking (English)- Frequency count analyses

<b>Correct finiteness types</b>	Frequency count of correct	Mean percentage of correct
	finiteness	finiteness
[+copula BE, +complement]	118	27.27
[+aux BE,+prog]	171	34.98
[+other verb, + correct tense]	143	26.62
Total	432	100
Finiteness error types	Frequency count of errors	Mean percentage of errors
[+BE, -prog]	78	20.97
[-BE, +prog]	131	34.53
bare verbs	188	35.80
[other verb, +wrong tense]	24	5.37
Total	421	100



#### **Finiteness error types (English)**

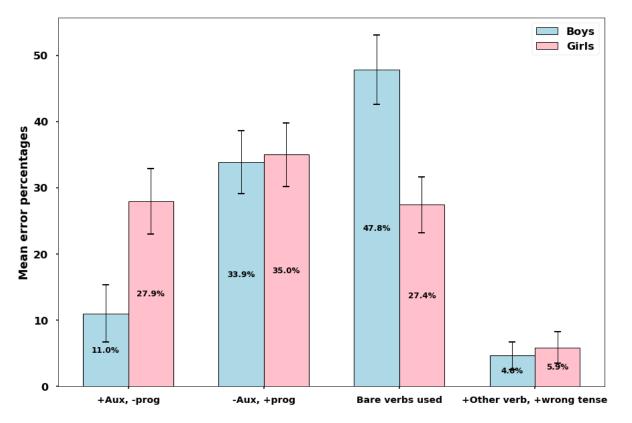


Percent of finiteness errors per type.

- Significant difference among error types [F (3.22, 286.74) =16.12, p<0.001, η<sup>2</sup>=.15].
- Post-hoc tests using a Bonferroni correction revealed a significant difference between [+Other verb, +wrong tense] and all other error types (p<0.001)</li>
- [BE + main verb] attested but not the most frequent error type
- Omission errors <u>not as frequent</u> as in Paradis et al (2008) or Ionin & Wexler (2010).
- Similar to Ntalli (2020) with 12-year old Chinese learners of English with 5 year exposure.



#### Finiteness error types by learner's gender



Percent of finiteness errors by participant gender

- There was a significant interaction between Gender and error types [F (2.41, 212.77) =4.74, p=0.006, η<sup>2</sup>=0.05].
- Both boys and girls produced a similar proportion of errors for three categories of error types;
- However, for use of bare verbs male participants (47.81%) had a higher mean compared to females (27.41%).



#### **Concluding remarks**

- English input is very limited for children in EMI government schools with implications for higher literacy skills (reading comprehension) and English production in narratives.
- Nevertheless, errors in finiteness are similar to those found in other studies of child L2 learners of English in quality and quantity.
- Oral skills (listening comprehension) are relatively spared and show some dissociation from reading skills, in contrast with what is established in studies from the Global North.
- $\rightarrow$  Multilingualism and contextual linguistic diversity enhance the language learning skills of these underprivileged children, primarily in the oral form.



#### The role of low quantity and non-native quality of input?

→Despite EMI, these learners show low levels of English because of limited oral input in the language, severe deprivation and poor pedagogies;

#### OR

Despite very limited input in English, poor pedagogies and severe deprivation, these learners show similar patterns of L2 English development with children in more privileged contexts, possibly due to growing up in a multilingual, highly linguistically diverse context.

This raises the question of how to define input quantity and quality which can lead to similar results in very different contexts of learning.



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Thank you for your attention



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#### **Publications**

Tsimpli et al (in press) Microstructural properties in the narrative retellings of young English learners in EMI schools in India: the role of L2 literacy, minority languages and English input in the classroom. In K. Grohmann (Ed.) *Multifaceted Multilingualism*. J.Benjamins.

Lightfoot et al (in press) Multilingual practices in Indian classrooms: Exploring and supporting teacher awareness and classroom strategies. *Multilingual Education in South Asia: At the Intersection of Policy and Practice*. Routledge.

Treffers-Daller et al (2022). How Ready Are Indian Primary School Children for English Medium Instruction? An Analysis of the Relationship between the Reading Skills of Low-SES Children, Their Oral Vocabulary and English Input in the Classroom in Government Schools in India, *Applied Linguistics*.

Vogelzang et al (2022). How Cognitive Abilities May Support Children's Bilingual Literacy Development in a Multilingual Society. Languages 7: 33.

Lightfoot et al (2021) Measuring the multilingual reality: lessons from classrooms in Delhi and Hyderabad. International Journal of Bilingual Education and Bilingualism.

Tsimpli et al (2020). Linguistic Diversity, Multilingualism, and Cognitive Skills: A Study of Disadvantaged Children in India. Languages, 5(10).

Tsimpli et al (2019). Multilingualism and multiliteracy in primary education in India: A discussion of some methodological challenges of an interdisciplinary research project. Research in Comparative and International Education, 14(1).



	Child ID: 221104BMVS; Gender: Male; Year 4	
	Text length: 64	Number of Verb Clauses
1	Cat is came and tree butterfly there.	1
2	Cat is taking that butterfly.	1
3	Butterfly cat is jumping tree and butterfly going.	2
4	One boy is came.	1
5	Cat is tree is that's boy is ball going that's water.	2
6	Boy is feeling, "my ball is going."	2
7	Cat is fish eating.	1
8	Boy is ball taking.	1
9	Fish is there.	1
10	Fish, fish cat eating.	1
11	Boy is left.	1
12	Cat is eating fish.	1



	Child ID: 12134AFSK; Gender: Female; Year 4		
	Text length: 51	Number of Verb Clauses	
1	mujhe kaha ke billi he na <mark>butterfly</mark> ko pakadegi	2	
	me say PAST that cat is CO.BE (expression) butterfly to catch FUT.F.SG		
	The cat will catch the butterfly.		
2	phir ye <mark>butterfly</mark> udd gai	1	
	then this butterfly fly go PAST.F.SG		
	Then this butterfly flew away.		
3	phir ye ladke billi phaans gai thi uske andar	1	
	then this boys cat trap PAST.M.SG it inside		
	then this boys was trapped inside it.		
4	phir ladka billi ko bachana tha phir ball uski haath se gir ke paani me chali gai	3	
	then boy cat to save PAST.M.SG then ball his hand from fall PAST water into		
	go PAST.F.SG		
	Then boy had to save the cat, then the ball slipped from his hands and went		
	into the water.		
5	phir wah udaas ho gaya ki meri <mark>ball</mark> isme chali gai	2	
<u> </u>			
—————————————————————————————————————	then he sad was PAST.M.SG that my ball in this go PAST.F.SG UNIVERSITY OF		

CAN BREES CEE ad that my ball went into this.