

Introduction

○ Aims of this study

- ◆ To assess the reliability and validity of MAPS-II by examining the correlations of MAPS-II and MLU metrics.
- ◆ To explore the sensitivity of MAPS-II by examining differences in MAPS-II scores across children's gender and age.
- ◆ To identify the sequence of syntactic forms mastered by Mandarin-speaking children.

Measurement: MAPS-II

○ Mandarin Assessment of Productive Syntax-II

- ◆ The MAPS-II is modeled on IPSyn (Scarborough, 1990): Similar procedure.
- ◆ The MAPS-II measures 20 items, and counts item sum-score and type sum-score (maximal 2 points for each syntactic type)

NP	1. (N. with) general classifier 'GE'; 2. (N. with) specific classifier; 3. N. with structural modifier 'DE'; 4. N. with structural modifier and head noun; 5. N. with locative expression
VP	1. V. with aspect marker; 2. V. with resultative complement; 3. V. with directional complement; 4. V. with manner complement; 5. V. with potential complement; 6. V. with measure complement
PP	1. Pre-verbal PP; 2. Post-verbal PP
S	1. 'Ba'-sentence; 2. 'Bei'-sentence; 3. Existential sentence; 4. Serial verb/ pivotal sentence; 5. Compound sentence with conjunctions; 6. Contracted compound sentence; 7. Complex sentence with mental state verb

○ Language sample:

- ◆ First 100 utterances derived from a parent-child dyad toy-play context were reviewed and coded.

	No	Age	MLU		No	Age	MLU
Age 2	24	2;4 (2;0~2;9)	2.66 (1.32~4.15)	Boys	51	3;10 (2;2~5;10)	3.44 (1.32~5.24)
Age 3	26	3;6 (3;0~3;11)	3.44 (2.26~4.58)	Girls	51	4;1 (2;0 ~ 5;10)	3.52 (1.68~5.53)
Age 4	26	4;5 (4;0~4;11)	3.89 (2.47~5.24)				
Age 5	26	5;5 (5;0~5;10)	3.86 (2.41~5.53)				

○ Inter-rater reliability:

- ◆ Twenty-five samples (25%) were rated by three raters.
- ◆ The Cohen's Kappa = .94 ~ .95.

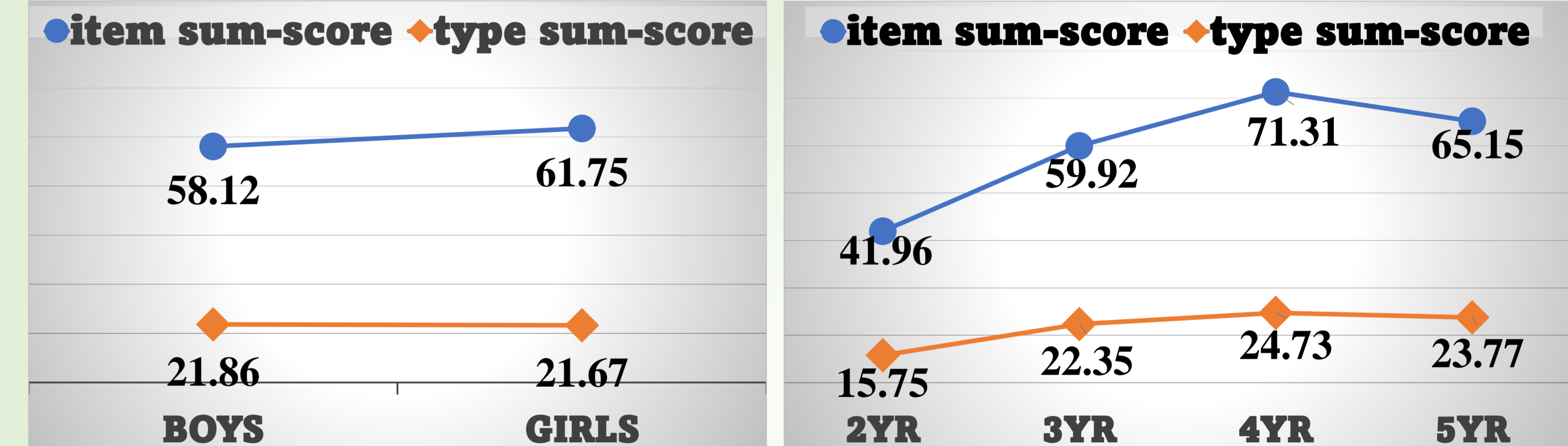
Results

○ Correlations of MAPS-II and MLU

	MLU	MAPS-II item sum score	MAPS-II type sum-score
MLU	-		
MAPS-II item sum score	.780**	-	
MAPS-II type sum-score	.771**	.719**	-

** $p < .01$.

○ Comparison of mean scores across gender and age groups



- ◆ Insignificant differences between gender.
- ◆ Significant differences across age. 2yr < 3, 4, 5yr (both sum-scores); 3yr < 4yr (only item sum-score).

○ Sequence of mastered types (% of at least 2 occurrences)

	MLU			
	1.5 - 2.49	2.5 - 3.49	3.5 - 4.49	4.5 - 5.49
NP1 general classifier 'GE'	92.30%	100.00%	100.00%	100.00%
NP5 N. with locative expression	84.60%	92.50%	88.20%	84.60%
VP2 V. with resultative complement	69.20%	90.00%	94.10%	92.30%
VP1 V. with aspect marker	53.80%	80.00%	91.20%	92.30%

Conclusion

- The MAPS-II : A validated measure to assess the productive grammar of Mandarin-speaking children between the age of 2 to 4.
- Between 4yr and 5yr old groups, no significant gain in MLU and MAPS-II scores.
- The MAPS-II can guide the planning of language interventions.

Reference

Scarborough, H. S. (1990). Index of Productive Syntax. *Applied Psycholinguistics*, 11, 1-22.

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