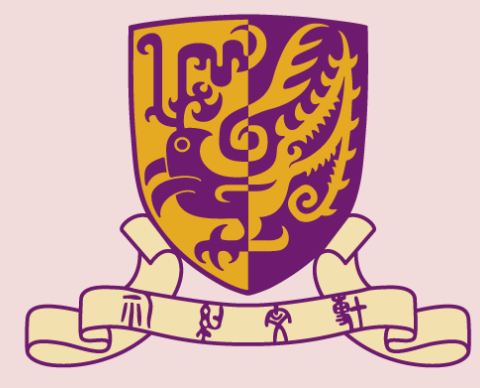# Written Chinese Assessment Tools for Deaf and Hard-of-hearing (D/hh) Children in Hong Kong

香港中文大學
The Chinese University of Hong Kong

手語及聾人研究中心
Centre for Sign Linguistics and Deaf Studies

賽馬會手語雙語共融教育計劃
JOCKEY CLUB SIGN BILINGUALISM AND CO-ENROLMENT IN DEAF EDUCATION PROGRAMME

捐助機構
Funded by:

香港賽馬會慈善信託基金
The Hong Kong Jockey Club Charities Trust

The Assessment of Chinese Grammatical Knowledge

Introduction

Aims: To assess D/hh children's Chinese grammatical abilities and profile both deaf and hearing children's grammatical developmental trajectory;

Significance: Design of the test materials is based on linguistic theory of Chinese; Applyies linguistics to language assessment; Automatic data collection;

Methodology

In written Chinese:	Results will not be influenced by hearing loss
On-line:	To improve participants' interests
Two levels:	KG (Level 1) & PS (Level 2)
Tasks:	Word Reordering ; Picture Selection; Picture-Sentence Match ; Fill-in-Blank.

Test Design

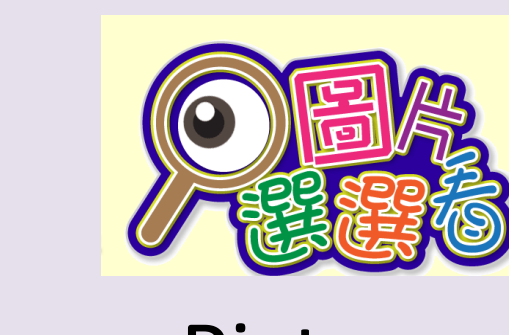#### Level 1: Target subjects K2-K3

Word Reordering
- Intransitive sentence (S + V) (animate subject)
- Intransitive sentence (S + V) (inanimate subject)
- Transitive sentence (S + V + O)
- Adjective modifies Noun (Adjective + N)
- Number modifies Noun (Number + Classifier + N)
- Demonstrative modifies Noun (Demonstrative + Classifier + N)
- Adjective modifies Noun with *de* (Adjective + *de* + N)
- Possessive *de* (NP + *de* + N)
- Possessive *de* (Pronoun + *de* + N)
- Adverbial modifies Verb with *de* (Adverbial + *de* + V)
- Adverbial modifies Verb (Adverbial + V)

Level 2: Target subjects P1-P4

Word Reordering
- *Ba*-construction
- *Bei*-construction
- Double Object Construction
- Locative Existential Sentences
- Modals
- Negations
- Questions

Picture Selection
- Binding (reflexive & pronoun)
- Comparatives
- Object Control Sentences
- Prepositions (*cong /xiang /zai*)
- Relative clauses (SSi & SOi)

Picture-Sentence Match
- Aspect (progressive & perfective)
- *Ba*-construction
- *Bei*-construction
- Quantification (all/some /every)

Fill-In-Blank
- Morpheme Distinction (*de*)
- Negator (*bu* & *meiyou*)
- Prepositions (*dui/gen/cong/xiang/zai*)
- Question (wh-words)

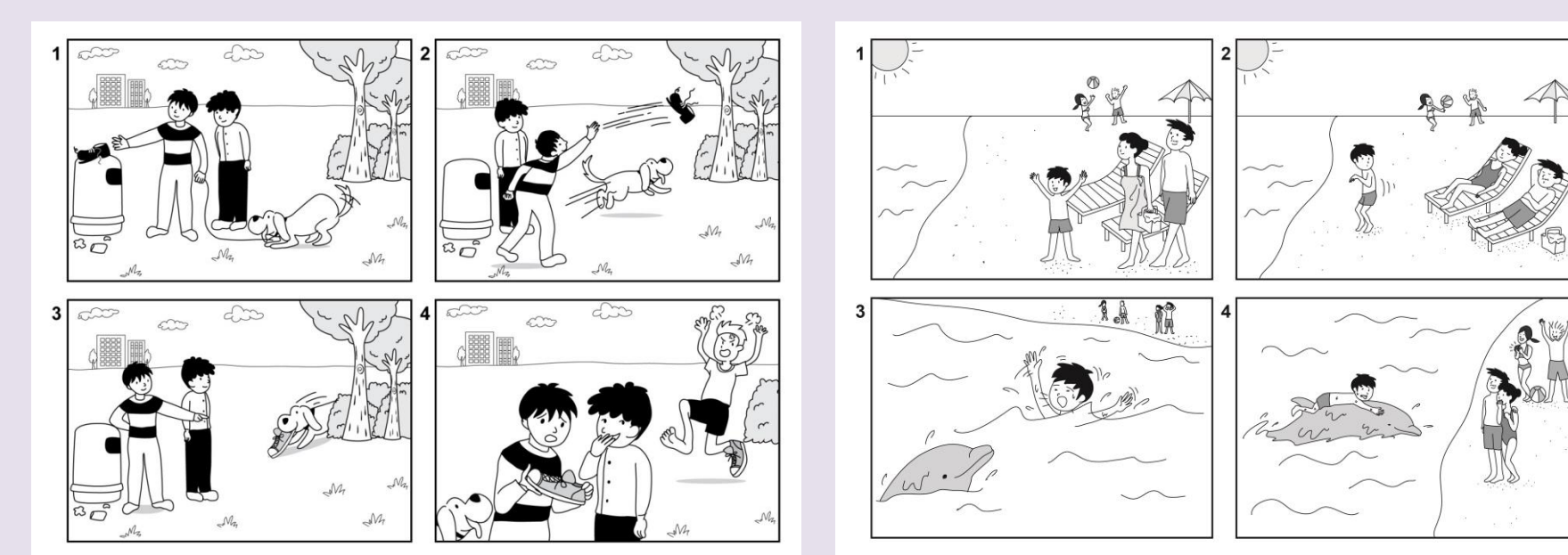## Writing Assessment for Deaf and Hard-of-hearing Children

Introduction

Aims: To measure D/hh and hearing children's productive syntax of written Chinese; To provide teachers and speech therapists a comprehensive and convenient tool to assess children's written language development.

Significance: Referred to other assessment tools such as Mandarin Assessment of Productive Syntax (Chen, Lin & Cheung 2010), but adopted a more comprehensive multi-dimensional analysis to better characterize the features of D/hh children's productive syntax.

Methodology

Test Design

Task:	Picture description task
Stimuli:	4-frame comic picture
Duration:	30 minutes
Word limit:	300 characters (punctuation included)

Multi-dimensional analysis scheme

Linguistic Analysis
- Lexical level
  - Part of Speech (POS)   -> 28 types
  - Morphological processes   -> 14 types
- Phrasal level
  - Nominal phrase structures   -> 23 types
  - Verb phrase structures   -> 16 types
  - Adverbial phrase structures   -> 7 types
- Sentence Level
  - Simple sentence (non-embedding & embedded)   -> 31 types
  - Compound sentence   -> 8 types

Impressionistic Rating
- Content (0-15)
- Language (0-15)
- Cohesion (0-10)

Narrative Analysis
- Narrative Structures -> 8 types
- Cohesive device -> 4 types

Error Analysis
- Orthographic
- Word morphology
- Lexical semantic
- Syntactic
- Discursive
- Others

Sample report

Name: C1-3-LKY	Hearing Status: Profound	Age when taking tests: *Time 1:* 12;0 *Time 2:* 13;3		
	Analysis	Sub-Level	type no.	Types (token no.)
Time 1	Lexical	POS	16/28	V (52); N (40); Pron (26); Adv (11); Asp (8); Conj (5); Adj (4); SFP (4); Loc (2); Mod (2); Neg (2); Pre-N DE (2); Wh (2); Intj (1); Prep (1); SF DE (1)
		Morphological process	8/14	Comp-modified (21); Suffixation (15); Comp-conjoined (10); Prefixation (10); Comp-resultative (6); Comp-VO (3); Redup-Ono (1); Redup-adv (1);
	Phrasal	Nominal P	3/23	Bare Noun (27); Pronoun (12); PossNP (2)
		Verb P	10/16	TranV (26); IntranV (15); Asp-LE (7); AdjV (4); CopV (3); Mod-Ep (2); Neg-BU (2); DitranV (1); Mod-Rt (1); Neg-MEI (1)
		Adverbial P	3/7	vPAdvP (9); SenAdvP (2); SenPP (1)
	Sentential	Simple	15/31	Sub-Pre (13);; SVC (4); No-Sub (3); Ccomp (2); Contr (2); Cop-Emb (1); Cop-Simp (1); DirV-vP (1); DOC (1); DS (1); Exist (1); Imp (1); Modal (1); WhQ (1); YNQ (1)
		Compound	1/8	COOR (2)
	Errors		4/6	Syntactic (22); Word morphology (8); Lexical semantic (3); Orthographic (1)
	Narrative structures:		7/8	Setting; Initiating event; Attempt; Consequence; Reaction; Resolution; Conclusion
	Cohesive devices:		2/4	Pronoun (26); Logical connectives (2)
	Rating scores:		27.6/40	Content: 11.2/15 Language: 9/15 Cohesion: 7.4/10
Time 2	Lexical	POS	17/28	V (44); N (30); Pron (12); Adv (12); Asp (7); Mod (3); Neg (3); Pre-V DE (3); Conj (2); Cl (2); SFP (2); Adj (1); Dem (1); Intj (1); Num (1); Prep (1); Wh (1)
		Morphological process	9/14	Comp-conjoined (21); Comp-modified (14); Comp-resultative (5); Comp-VO (5); Suffixation (5); Idiom (2); Prefixation (2); Redup-adj (1); Redup-adv (1);
	Phrasal	Nominal P	5/23	Bare Noun (33); Pronoun (24); AdjNP (1); DemClP (1); NumClP (1)
		Verb P	9/16	IntranV (19); TranV (19); Asp-LE (5); AdjV (4); Mod-Rt (3); Asp-ZAI (2); Neg-BU (2); CopV (1); Neg-MEI (1)
		Adverbial P	4/7	vPAdvP (5); vPDEAdvP (3); SenAdvP (2); SenPP (1)
	Sentential	Simple	9/31	Sub-Pre (6); DS (5); Ccomp (3); DirV-vP (3); Modal (3); No-Sub (2); Imp (1); SVC (1); WhQ (1)
		Compound	2/8	SUCC (1); TEMP (1)
	Errors		3/6	Word morphology (8); Syntactic (6); Lexical semantic (1)
	Narrative structures:		6/8	Setting; Initiating event; Attempt; Consequence; Reaction; Resolution;
	Cohesive devices:		3/4	Pronoun (12); Connective adverbs (2); Demonstratives (1)
	Rating scores:		26.4/40	Content: 10.8/15 Language: 8/15 Cohesion: 7.6/10

Note: Please refer to the scoring scheme handbook for the structure descriptions, coding and examples.