Lessons from Mandarin immersion learner language

Comparison Chart (SOPA Tasks and COPE Cue Cards)
MMIC Mandarin Immersion Assessments

	SOPA (K)	SOPA (Gr. 2)	COPE (Gr. 5)
Task 1	Animals, Math Story Problem	Animals, Compare/ Contrast, Math Story	Introductions
Task 2	Informal Q&A, Weather, Seasons	Informal Q&A	Typical School Day
Task 3	Tree Life Cycle	Plant Life Cycle	Class Project
Task 4	"Goldilocks" Retell	"Goldilocks" Retell	Summer Vacation
Task 5	Wind down: TPR	Wind down: TPR	Incident at Recess
Task 6			Photo Comparison Retell Legend of Nian

Complexity, Accuracy and Fluency (CAF) Analysis

I. **Complexity** (Ellis & Barkhuizen, 2005; Housen & Kuiken, 2009; Housen, Kuiken, & Vedder, 2012)

- Definition of the analysis of unit: The Analysis of Speech Unit (AS-Unit) (Ellis & Barkhuizen, 2005; Foster, Tonkyn, & Wigglesworth, 2000; Jin, 2007)
- Definition of word (Li & Thompson, 1989; Packard, 2000)
- Definition of unique word

A. **Grammatical complexity** (Housen, Kuiken, & Vedder, 2012)
  1. Syntactic complexity (Housen, Kuiken, & Vedder, 2012)
     - Overall measure (Tavakoli and Foster, 2008)
       o Mean words/AS-Unit
     - Sentential measure (Foster et al., 2000)
       o Mean clause/AS-Unit; Subordinate Clauses/AS-Unit
     - Sub-sentential measure (Norris & Ortega, 2009)
       o Mean length of clauses
     - Phrasal measure (Norris & Ortega, 2009; Pallotti, 2009)
       o Types and proportional use of modified noun phrases (Li & Thompson, 1984)
       o Proportion of phrases using "把/ba-construction" (Tsao, 1987; Liu, 1997)
       o Types and proportion of phrases using 在/zai
  2. **Morphological complexity** (Housen, Kuiken, & Vedder, 2012)
     - Aspectual morpheme"在/zai"
       o Proportion using 在/zai as a aspectual morpheme

    B. Lexical complexity (Bulté & Housen, 2012)
1. Variety (Bulté et al, 2008; Giuraud, 1954)
   - Guiraud Index: Proportion of types to tokens (Type Token Ratio)
     o All types
     o Content types: Noun, verb, adjective
2. Density (Bulté et al, 2008)
   - Proportion of content to function words
3. Sophistication (Beck & McKeown, 1985; Hanban Youth Chinese Test, n.d.; Xiao, Rayson, & McEnery, 2009)
   - Proportion of Tier 1/2/3 words

II. **Accuracy** (Ellis & Barkhuizen, 2005; Housen & Kuiken, 2009; Iwashita, Brown, McNamara, & O'Hagan, 2008; Tarone & Wang, 2014)

- Definition of error (Corder, 1971)

A. **Global accuracy measures** (Li & Thompson 1981; Duff, 2013)
1. Proportion of error-free AS-units (grammatically, lexically, tonally, totally)
2. Proportion of word order errors in grammatically inaccurate AS-Units
3. Proportion of error-free clauses (grammatically, lexically, tonally, totally)
4. Proportion of AS-units/clauses identified as "comprehensible in context" by native Mandarin speaker

B. **Specific accuracy measures**
1. Connectives: "和/he," "而且/erqie," and "然后/ranhou"
2. Emerging sensitivity for Topic Prominence in Mandarin (Jin, 1994)

III. **Fluency** (Duff, 2013; Fillmore 1979; Iwashita et al., 2008; Robinson, Ting, & Unwin, 1995; Tonkyn, 2012)
A. **Speed fluency** (Duff, 2013)
1. Rate of speech (non-repeated character syllables/220 sec. – unfilled pauses x 60 = syllables/min.)

B. **Productivity fluency** (Fillmore, 1979)
1. Mean length of AS-unit in syllables (not including extraneous language)

C. **Breakdown fluency** (Duff, 2013; Iwashita et al., 2008)
1. Number of pauses
   - Filled/total pauses (*n/N*)
   - Unfilled/total pauses (n/N)
2. Total unfilled pause time (sec.)
3. Proportion of English syllables to total syllables

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