

# Bilingual Language Development among Asian American Children

Research Findings and  
Implications for Educators and Parents

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# Clarifications

- Asian American Bilingual Children
- Presentation Style

# Demographics of Young Bilingual Children in the US

- Among the 23.4 million children under age 6, children of immigrants make up 22%
- Increase to 30% in 2030
- 93% are US citizens
- 87% hear a language other than English
- 58% have at least one LEP parent
- 33% live in “linguistically isolated” households

# Terms

- L1 = first language; home language
- L2 = second language; English

# How Can Bilinguals Be Different from Each Other?

- Time

Simultaneous Bilinguals

Sequential Bilinguals

- Amount    L1    limited.....significant  
              L2    limited.....significant
- Context : home, school, community

# Two Bilingual Populations

- US Born: infants & toddlers (0-3 years)  
preschoolers (3-5 years)  
school-age children (5-18 years)
- Foreign Born: age of arrivals;  
length of residence in US

# Two Bilingual Populations

- US Born: infants & toddlers (0-3 years)  
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# Questions

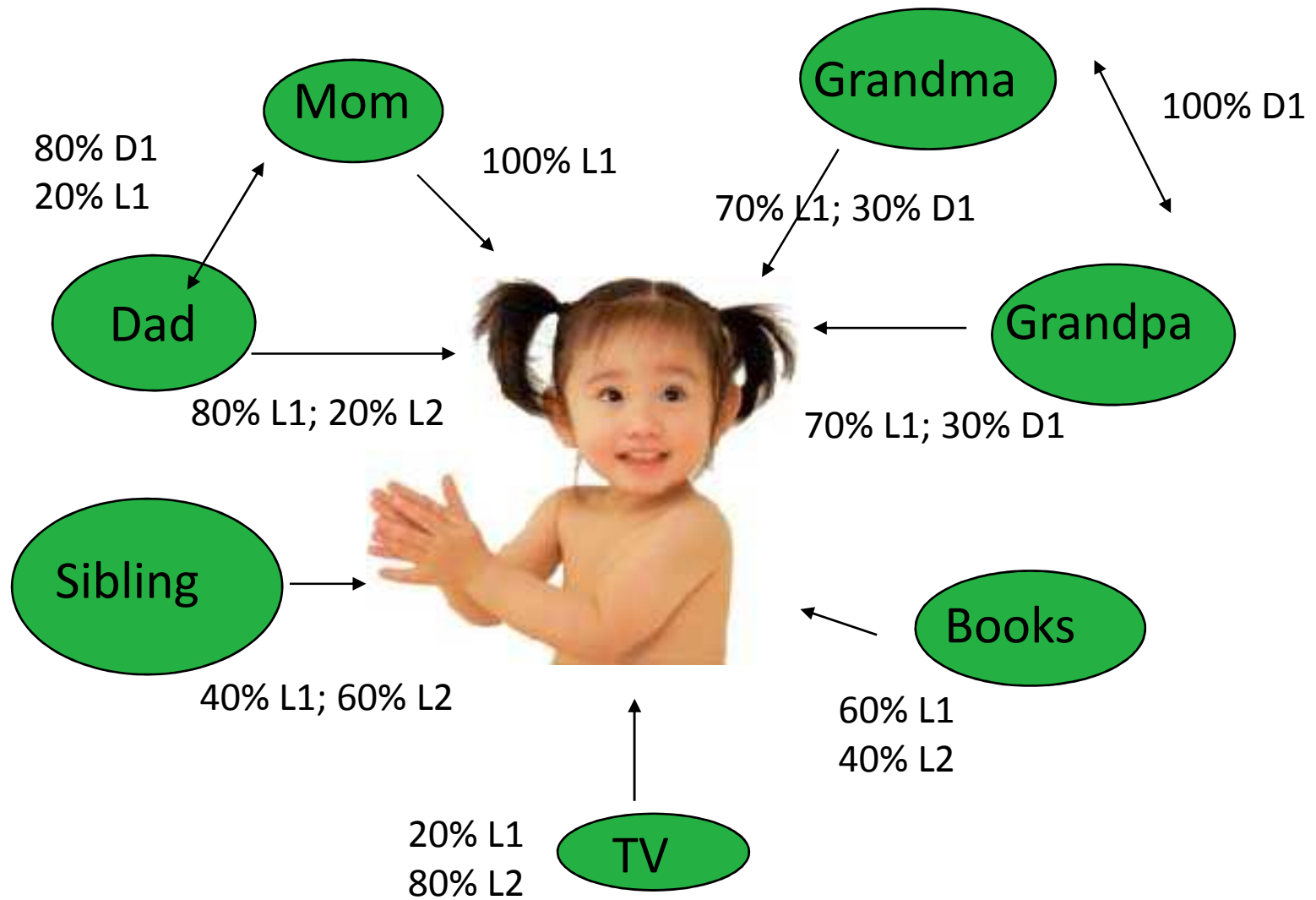
## US Born Population

- If at home children use home language without or with some English, would we expect these children to reach the language development milestones at the same age as monolingual children do?
- If a young child speaks predominantly an Asian home language, when and how does transition to English occur?
- Would the continuing development of home language engender the full mastery of English?
- Why do some of these children become proficient in both English and their home language whereas others develop or retain little or no proficiency in their home language?

# Two Bilingual Populations

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preschoolers (3-5 years)  
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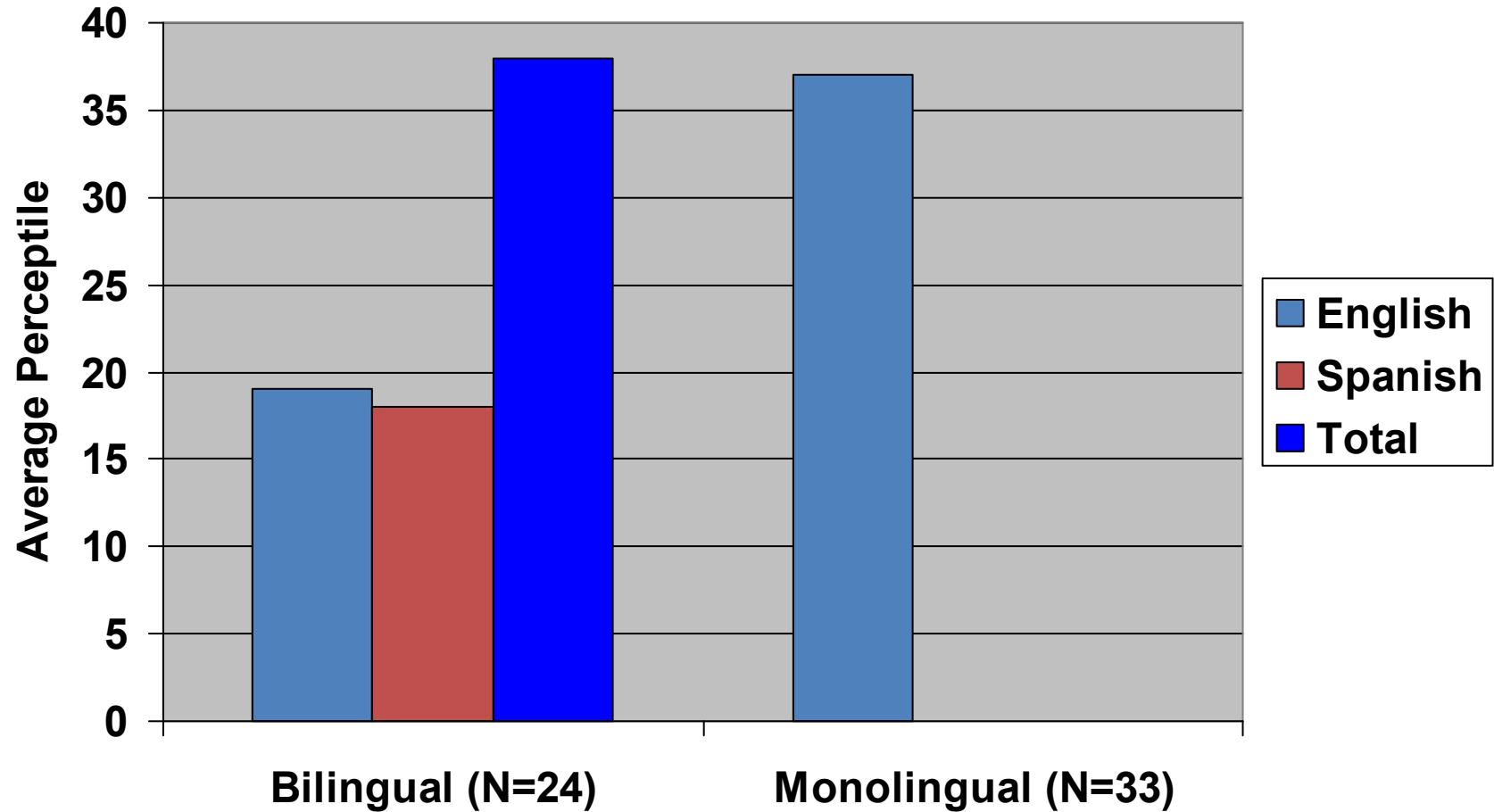
# The Language World of a Young Bilingual Child



# Typical Development View

- When bilingual children's abilities in both languages are combined, their language develops at the same speed as monolingual children.

## Comparison of Spanish-English Bilinguals and English Monolinguals (Pearson et al., 1993)



(Pearson, Fernandez & Oller, 1993)

(N=23)

# Delayed Development View

- Bilinguals' language development is slower than that of their monolingual peers with similar age, even if when knowledge in two languages are combined.
- Evidence: Bilingual seem to learn to distinguish certain sounds in their languages at a later age than monolingual children (Bosch, Sebasti, Gall, 1997; 2003; Burns et al., 2003).
- “Common sense”

# Need More Research

- Under-explored Asian populations (i.e., Chinese and Korean)
- Large cross-sectional sample size
- Detailed examination of home language environment

On-going Study

# Participants

- 93 bilingual infants and toddlers  
75 Chinese-English; 18 Korean-English  
46 girls, 47 boys:
- Age: 9 – 38 month; mean: 24.53

# Parental Education and Language Abilities

- 65% Mothers had college degree
- 70% Fathers had college degree
- Mother: speak L1 mean: 4.7 (range: 2-5);  
speak L2 mean: 3.4 (range: 1-5)
- Father: speak L1 mean: 4.3 (range: 1-5);  
speak L2 mean:4.1 (range: 1-5)

# Flushing Mall





# Instrument – Vocabulary Comprehension & Production

- MacArthur-Bates Communicative Development Inventory (CDI) (Fenson et al., 1992)

Infant Version: 8 -16 m

396-item checklist  
19 semantic categories

Toddler Version: 17 -30 m

680-item checklist  
22 semantic categories

people, animals, household items, vehicles, actions,  
descriptive words

# Psychometric Properties of MacArthur-Bates CDI

- **Concurrent and predictive validity** (Bornstein et al., 1998; Dale, 1991; Fenson et al., 1994; Jackson-Maldonado et al., 1993- Spanish)
- **Test-retest reliability** (Fenson et al., 1994; Jackson-Maldonado et al., 1993 – Spanish version)



Elizabeth Bates

1947-2003

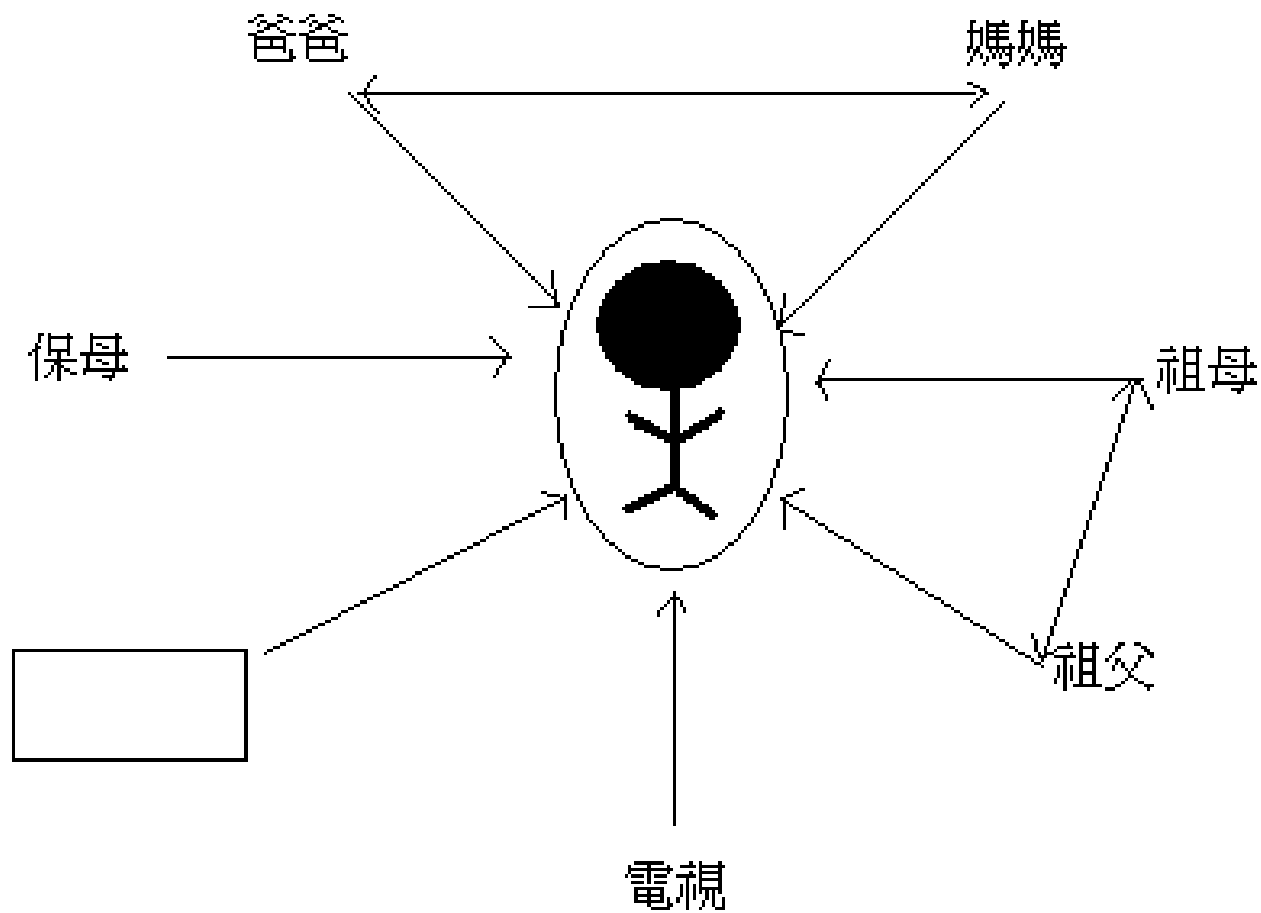
# Instrument – Word Comprehension & Production

- L1 Vocabulary Comprehension & Production

**Chinese:** Putonghua Communicative Development Inventory (Mandarin PCDI) (Tardif et al., in press)

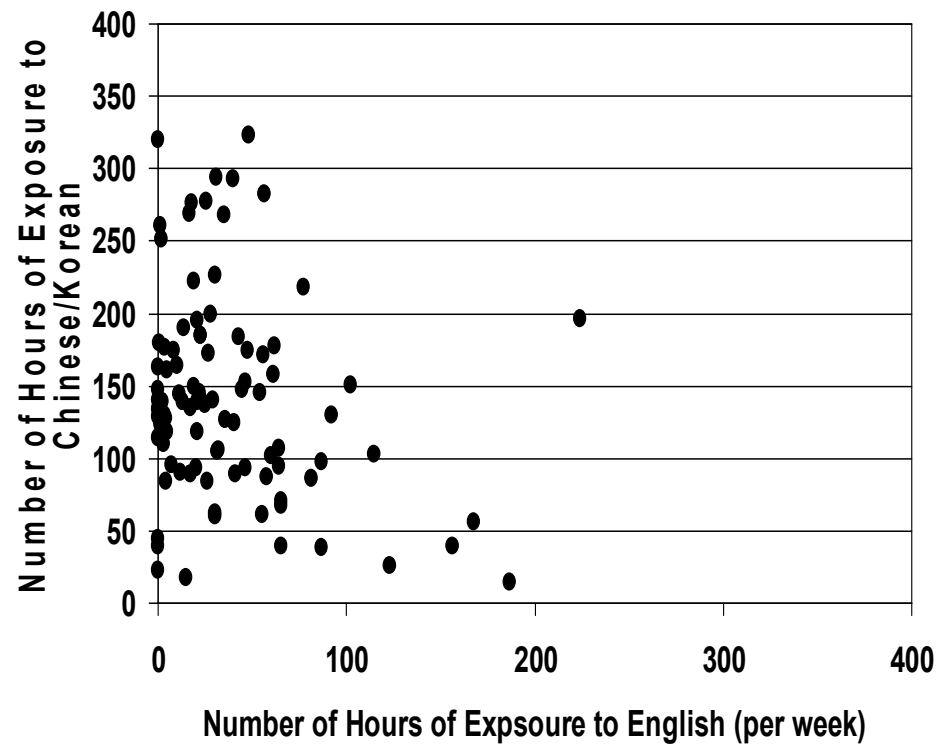
**Korean:** Korean Communicative Development Inventory (Korean CDI) (Pae, 1993)

# Instrument – Language Background



Starting Question:  
To Which Extent Are These Children  
Exposed to Two Languages?

## Children's Exposure to Two Languages



### Language

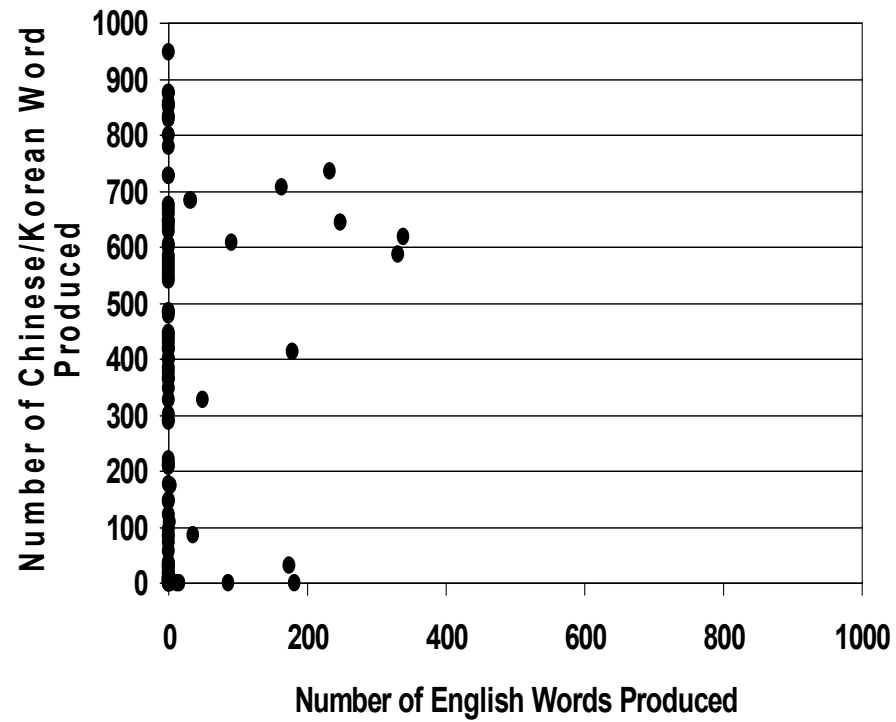
### Number of Hours of Exposure to L1 and L2

	N	Range	Mean
Chinese / Korean	93	15-345	148
English	75	1-216	55
Dialect	49	0.7-224	43

Next Question:

How Many Words Can These Children Say  
in Each Language?

## Children's Word Production in Two Languages



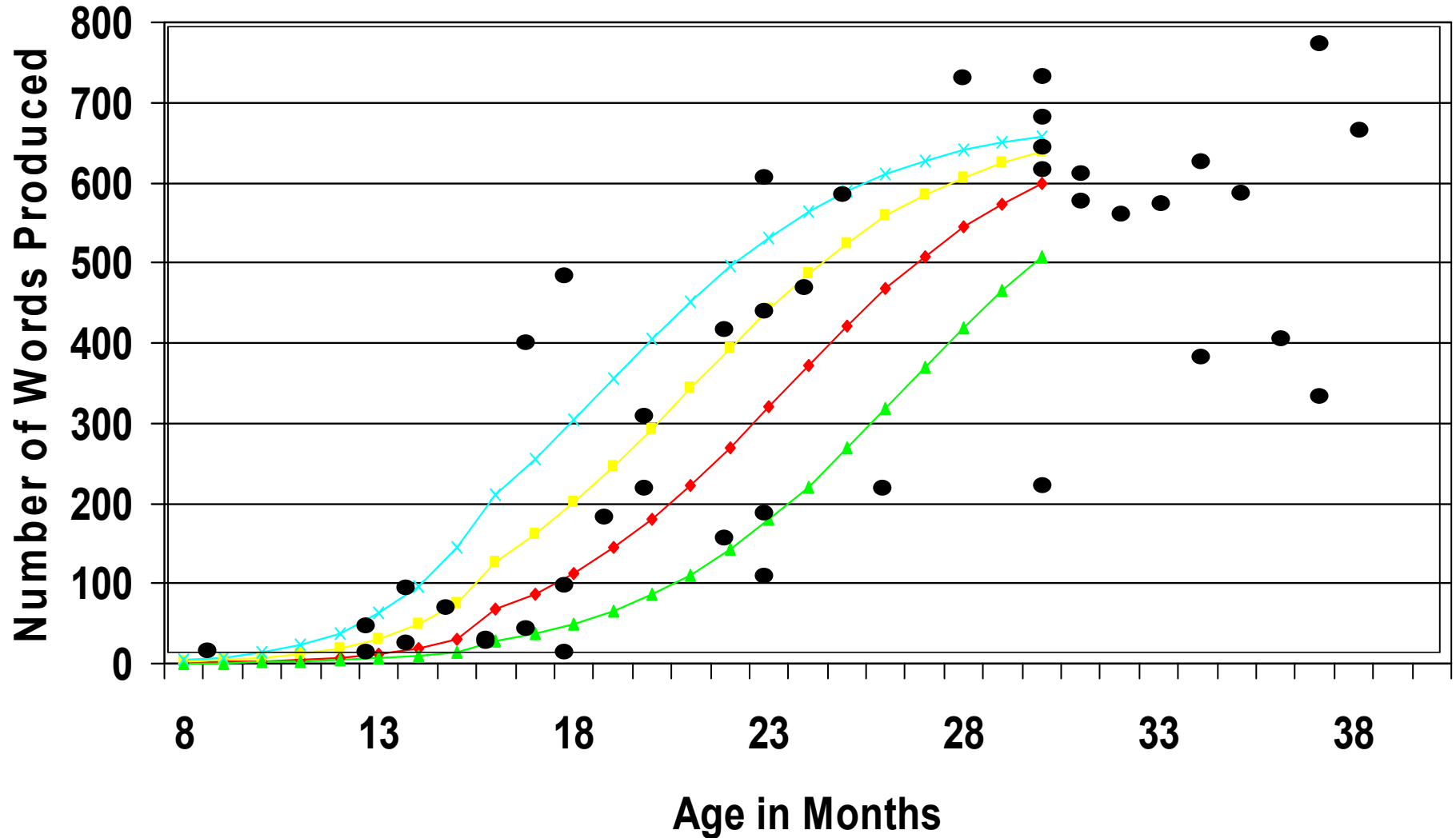
Language	Number of Words Produced		
	N	Range	Mean
Chinese / Korean	91	0-875	359
English	21	0-338	109

Next Question:

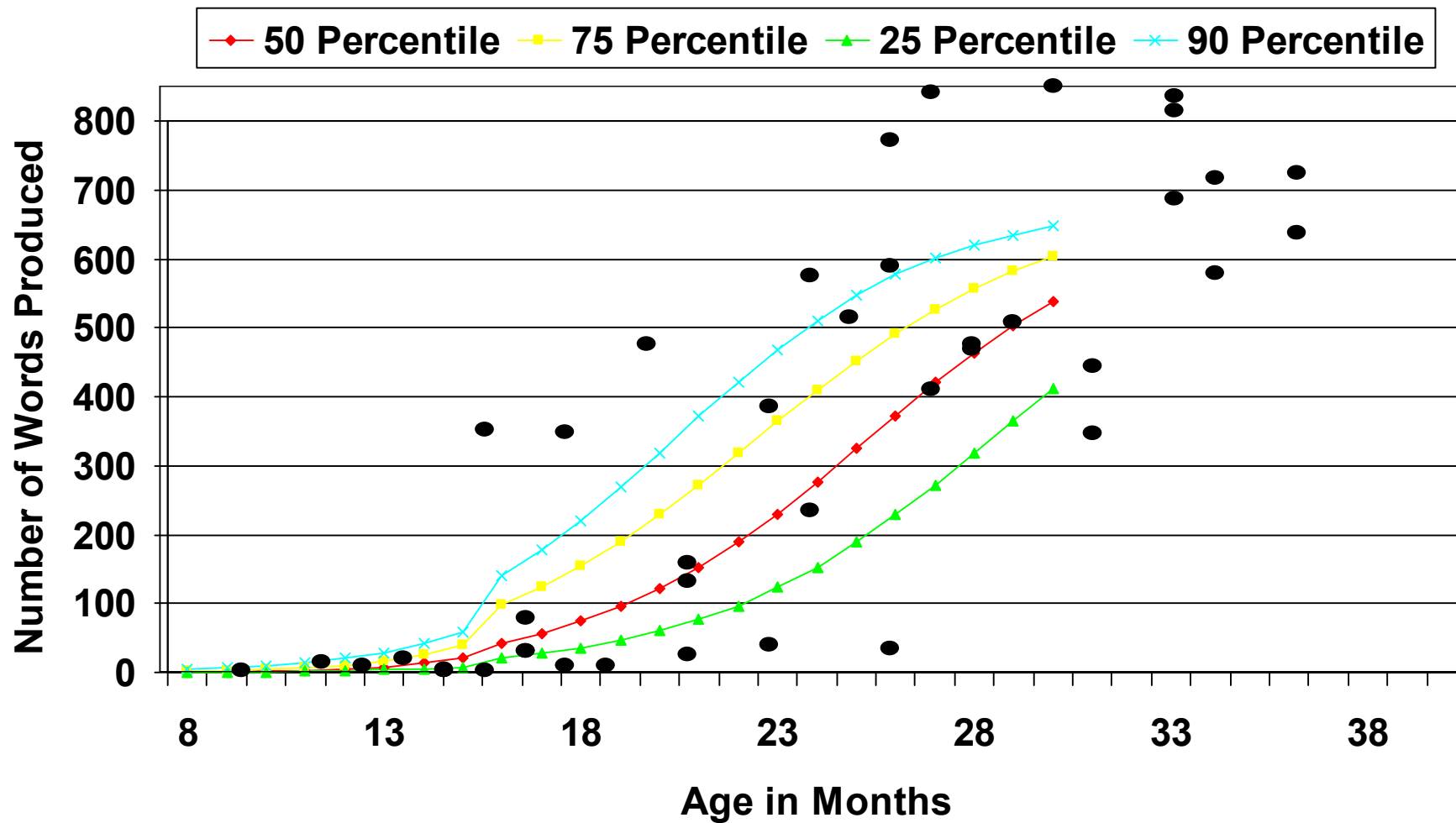
How Are These Children Doing In  
Comparison to Monolingual Peers?

# Bilingual Girls L1 and L2 Word Production

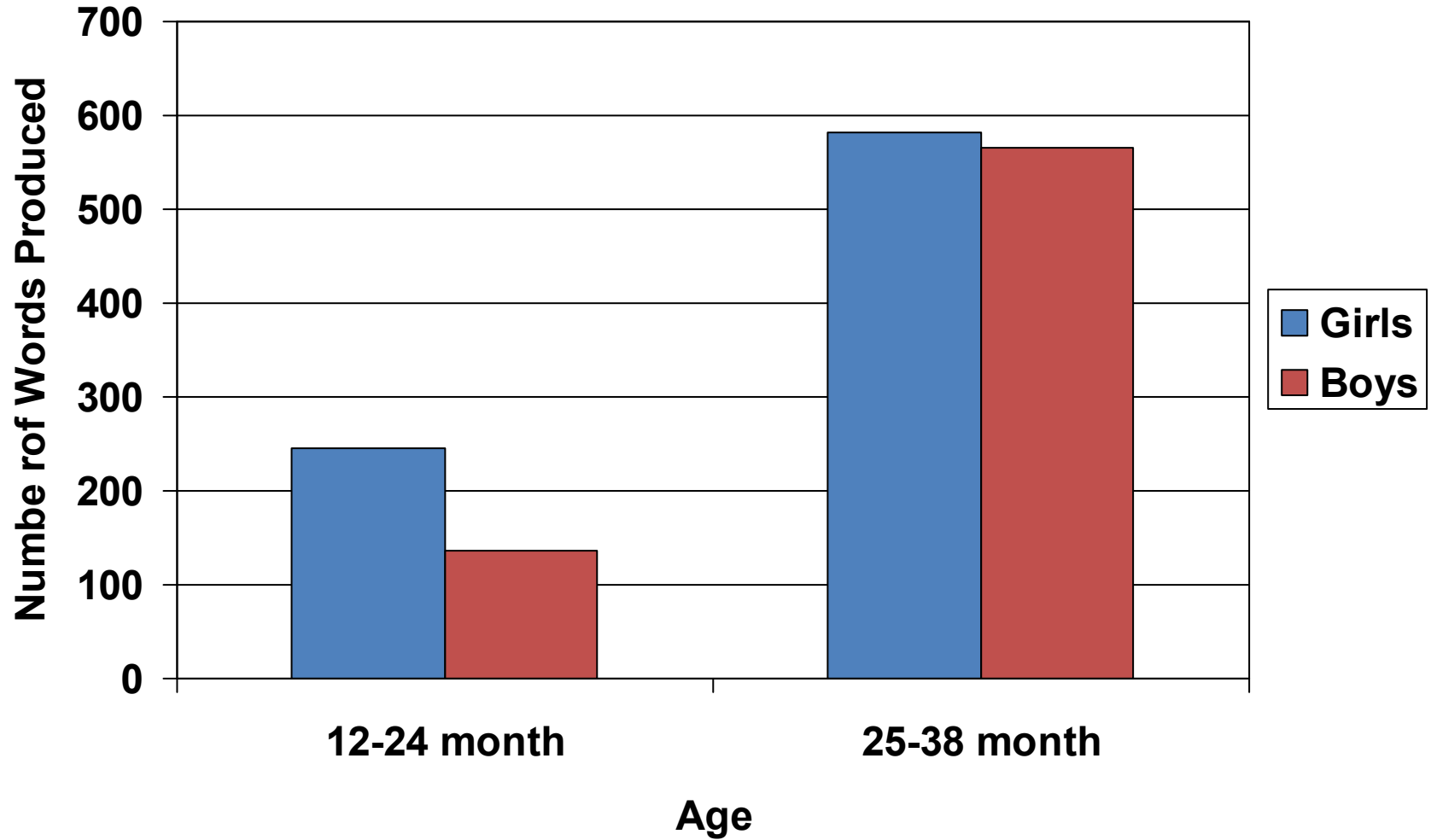
50 Percentile 75 Percentile 25 Percentile 90 Percentile



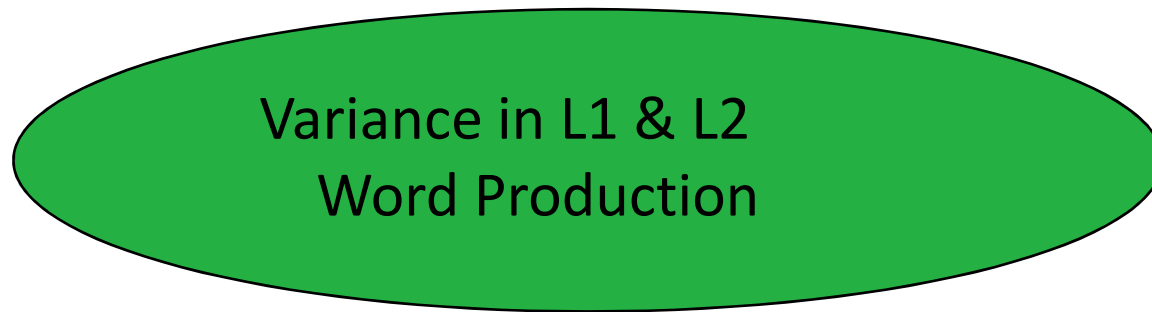
# Bilingual Boys' L1 and L2 Word Production



## Gender Differences (L1 & L2 Total)



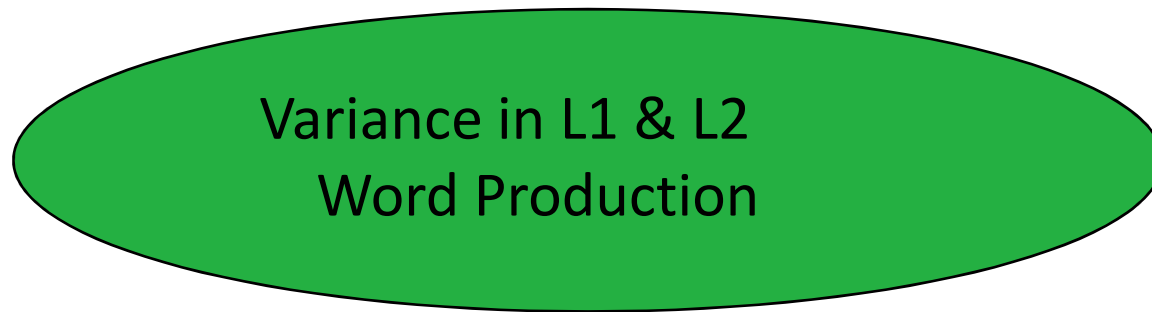
# Explanatory Variables of L1 and L2 Word Production



Significant Factor:

- Mother's Educational Level: 2%

# Explanatory Variables of L1 and L2 Word Production



Other Significant Factors?

- Interaction style – joint attention, object/action labeling
- Predictive of language development among monolinguals and Spanish-English bilinguals

# Summary

- These children with Chinese and Korean as home languages were mainly exposed to their home language (75% of the time). However, 75% of the children also had exposure to English.
- Their early vocabulary predominantly consists of L1 words.
- When their vocabulary in two languages are combined, they are developing at the same speed as children who only hear and speak one language.
- Girls have an advantage over boys before 24 month of age, just like monolinguals do.

# Implications

- **In general**, human mind has the flexibility to handle more than one language at the same time. This situation does not cause delays in vocabulary size among **average** bilinguals.
- We can, **for most bilinguals**, have similar expectations as we do for monolinguals.
- However, whether a bilingual environment can be particularly challenging for a small number of children needs to be further investigated.

# Implications

- When evaluating a bilingual child suspected of speech/language delays/disorders, **both languages** need to be assessed.
- The need for bilingual professionals – speech language pathologists, teachers, school psychologists, therapists

# Implications

- If we study a more representative sample of the Asian communities with lower educational levels, we should find that home language is used at a higher percentage, and is more dominant in children's early vocabulary.
- When these children enter school, their knowledge and experiences in their home language and culture should be appreciated and supported.
- Educational programs implementing specific approaches to achieve this goal will promote the social, emotional and cognitive development of young bilingual children.

# Two Bilingual Populations

- US Born: infants & toddlers (0-3 years)  
preschoolers (3-5 years)  
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# Preschool Age – Unique Period

- 0-3: children are mostly under home care
- After 5: children all go to English-speaking, mostly NYC public schools
- 3-4 (preschool age): (a) continue to be under home care in US (b) under home care or in preschools in home country (c) enter bilingual preschools (d) enter all English-speaking schools

# Preschool Age

- What kinds of child care or educational settings are these children in? How are decisions made?
- How do their home language and English abilities continue to develop?
- What are the challenges for teachers and parents?

# Child Care and Education Choices

What kinds of child care or educational settings are these children in? How are decisions made? (Who Makes What Choice? How and why?)

- Parental child development beliefs and values
- Grandparents availability – available in US or home country

# Language Development

How do their home language and English abilities continue to develop?

- If in an English-speaking school, there's limited growth of home language, but English grows at a faster rate.

Sarah Shin's research with Korean speaking children;  
Kathryn Kohnert's research with Hmong speaking children

# Family and School Challenges

- Family: limited information sources about schools, and enrichment activities for young children
- Schools: language and cultural barriers between staff and family

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# Questions

## School Age (5-18 years)

- What happens to their English and home language?
- How long does it take for bilingual children to catch up with their monolingual English speaking peers?
- Does continued home language growth interfere with English learning?

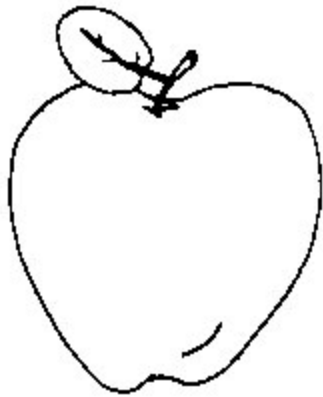
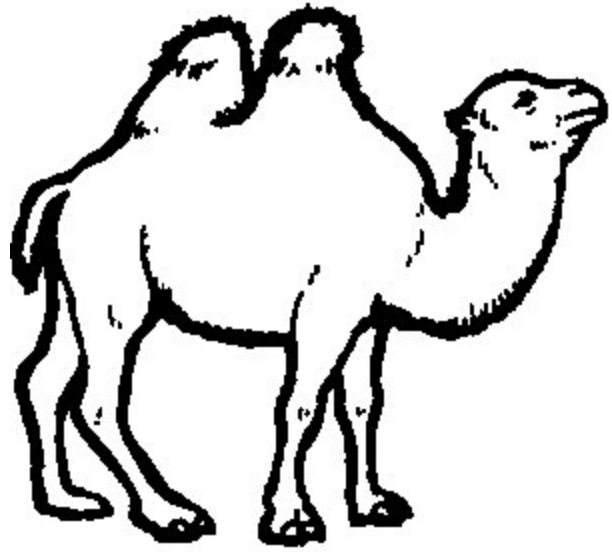
# An On-going Study of Bilingual Lexical Development

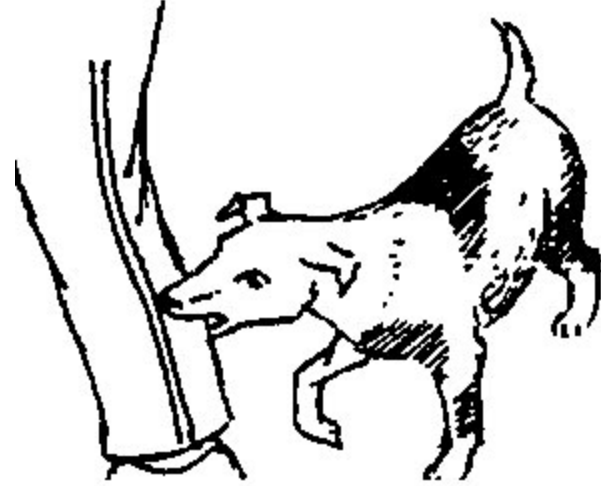
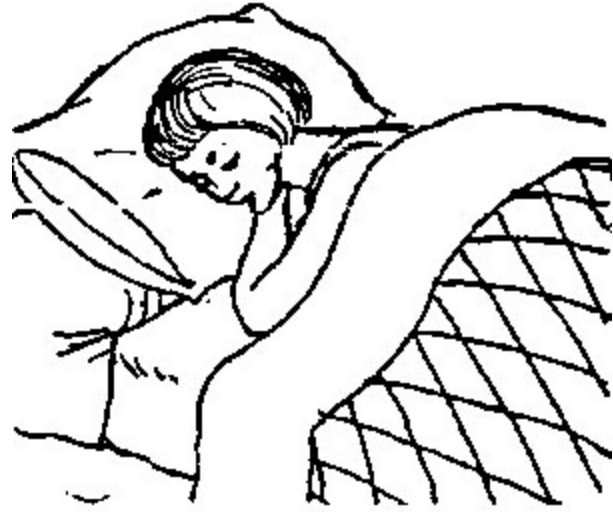
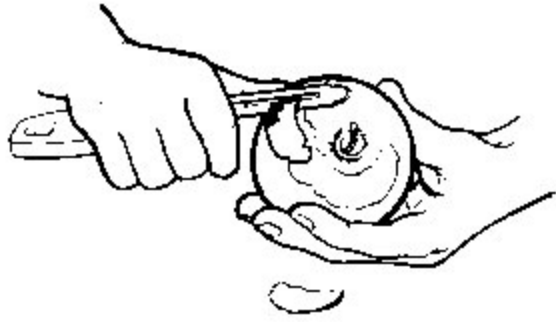
# Participants

- 83 children
- Age 5-18 years; mean age = 11
- Female: 48; Male: 35
- Mandarin / Cantonese as home language

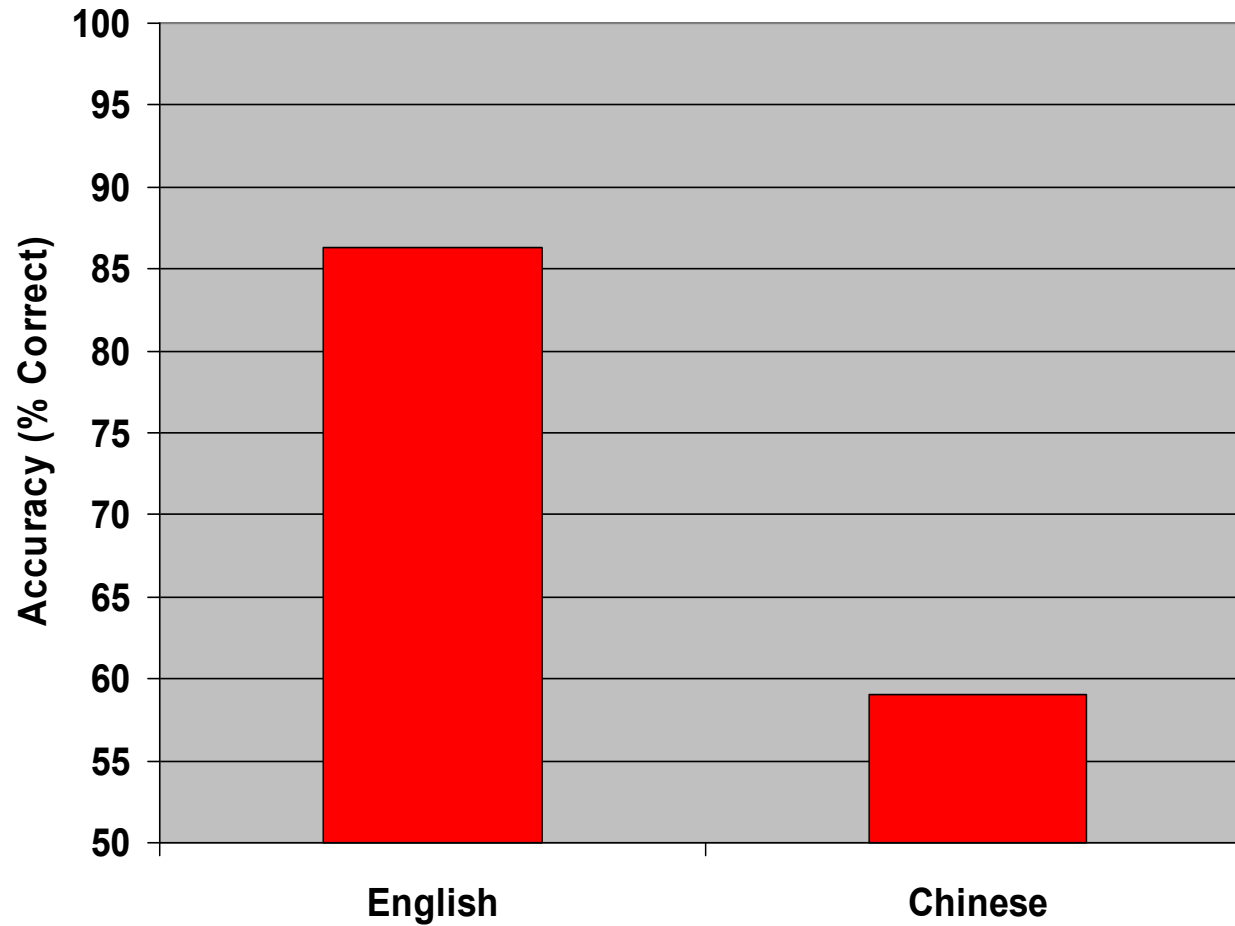
# Tasks

- **Picture Naming**
- **Verbal Fluency**
- **Peabody Picture Vocabulary Task**

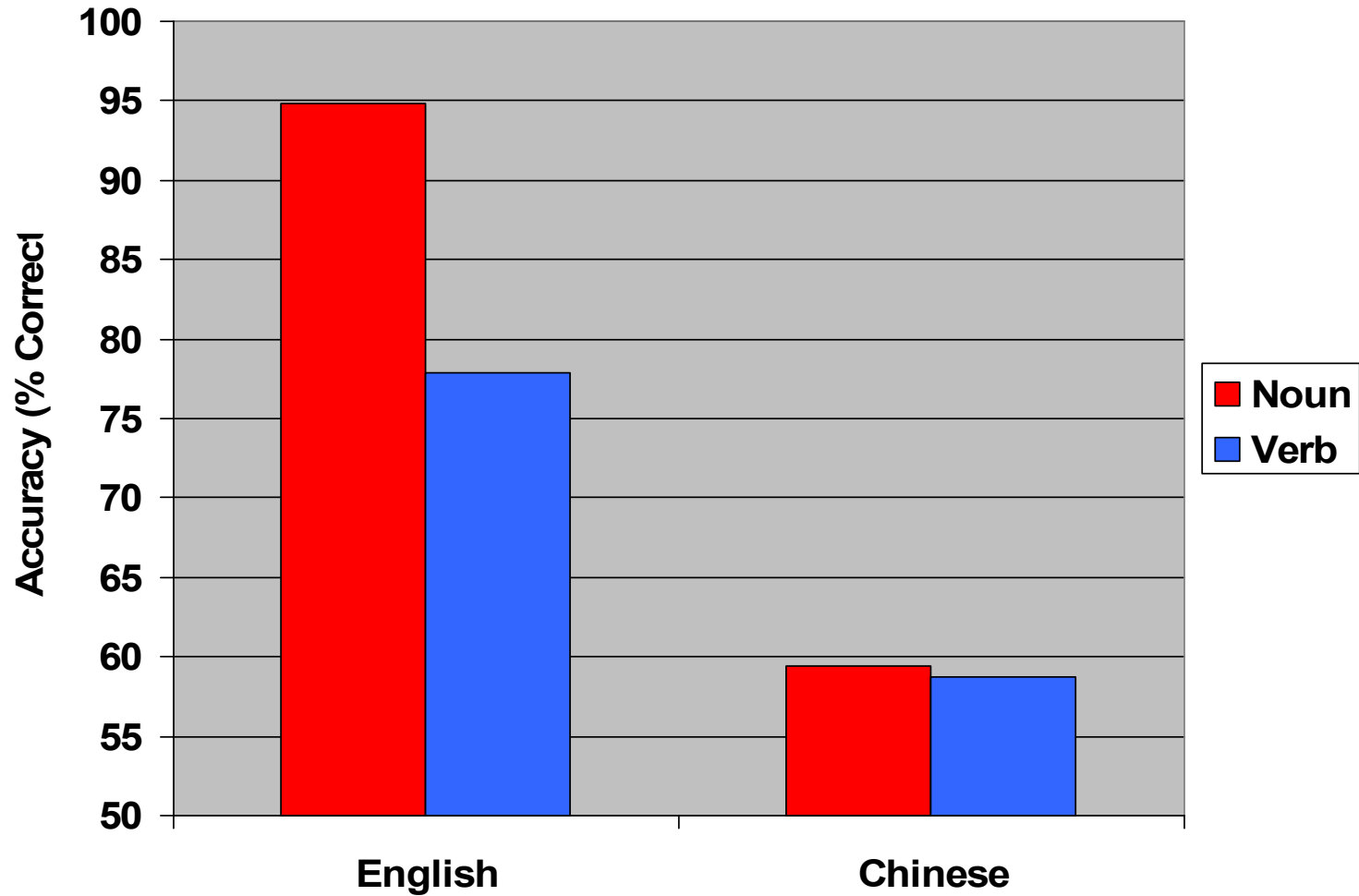




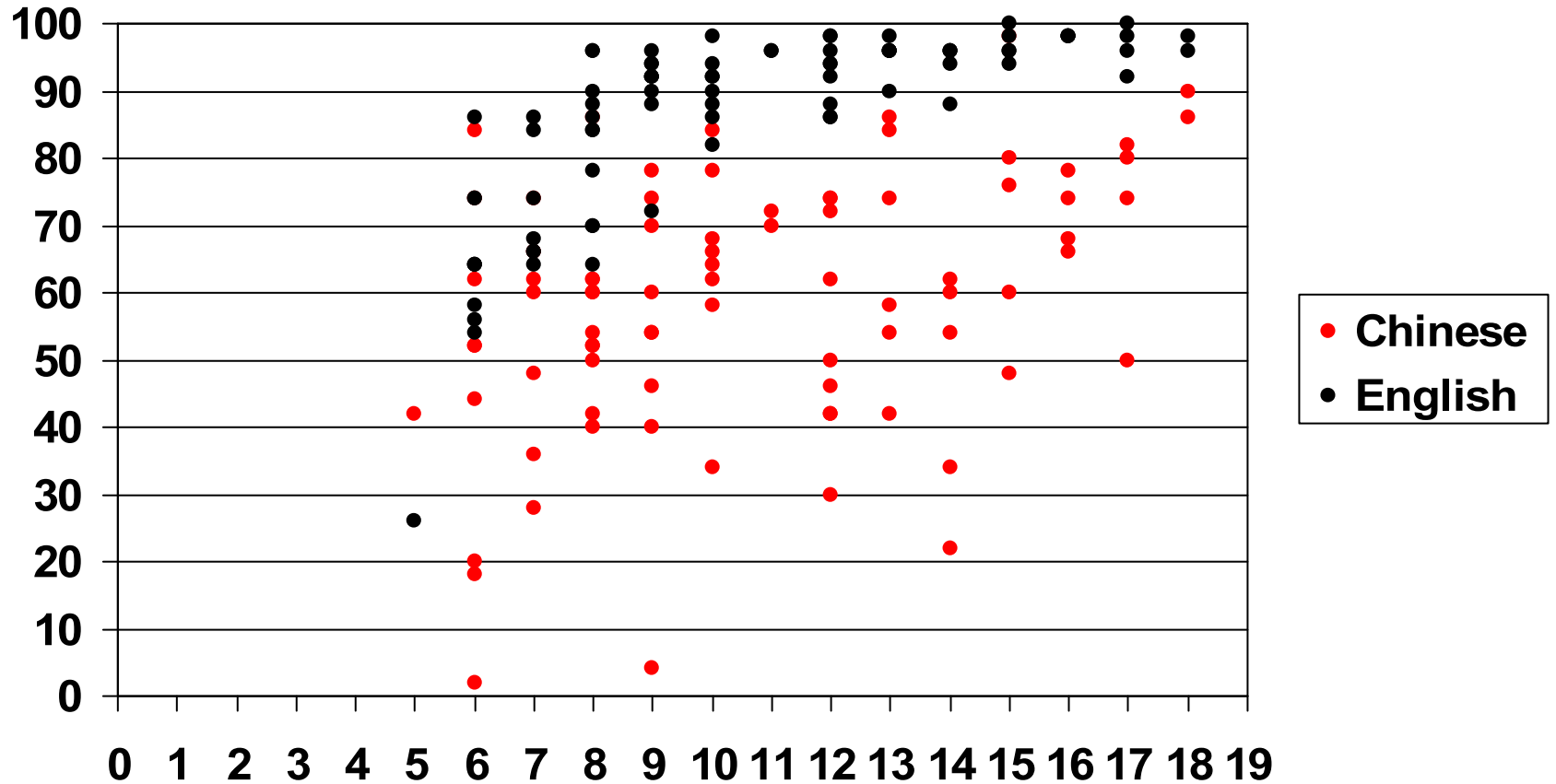
# Result 1: Which Language Is Better?



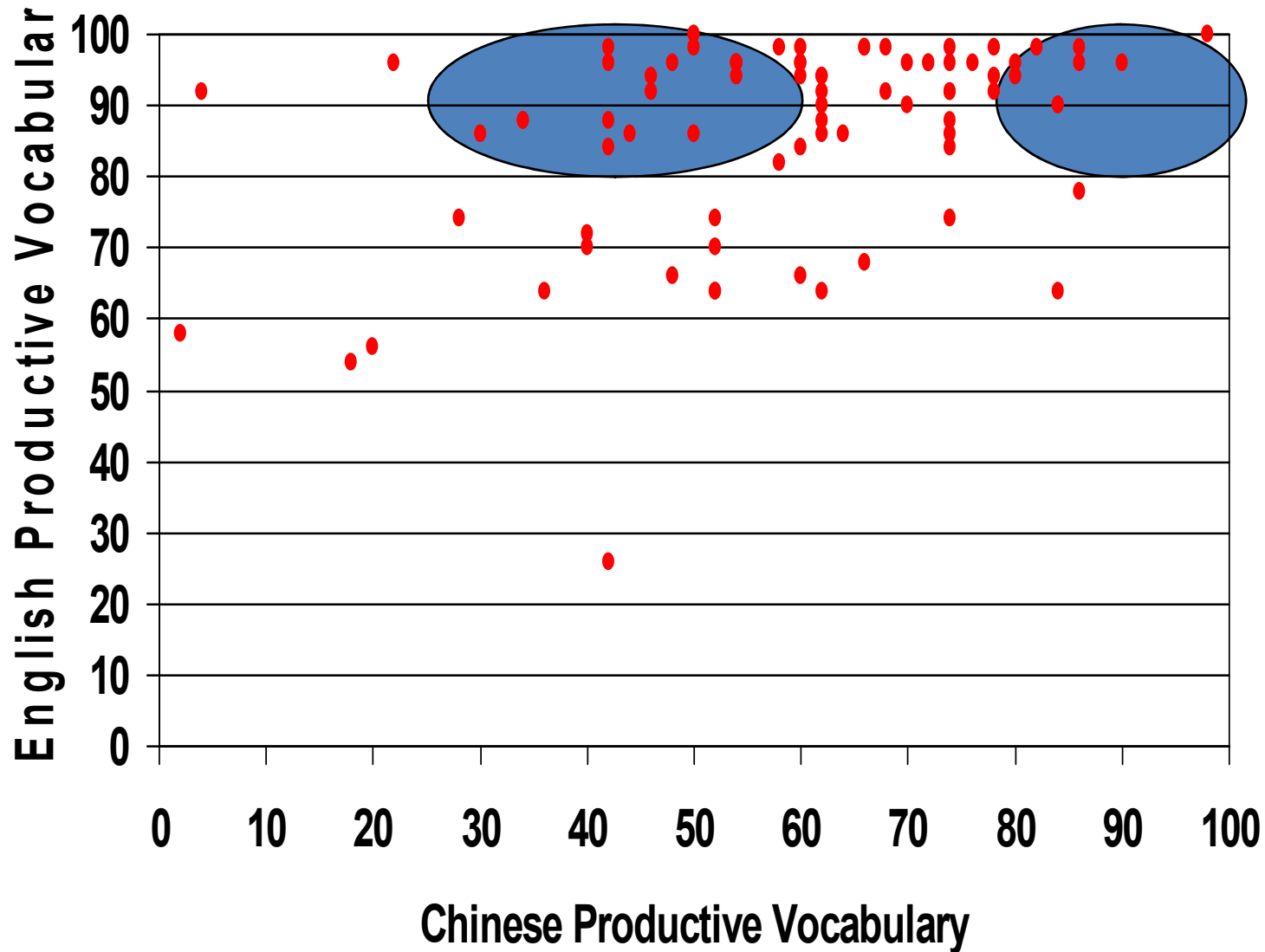
## Result 2. Which Words Are Harder to Learn?



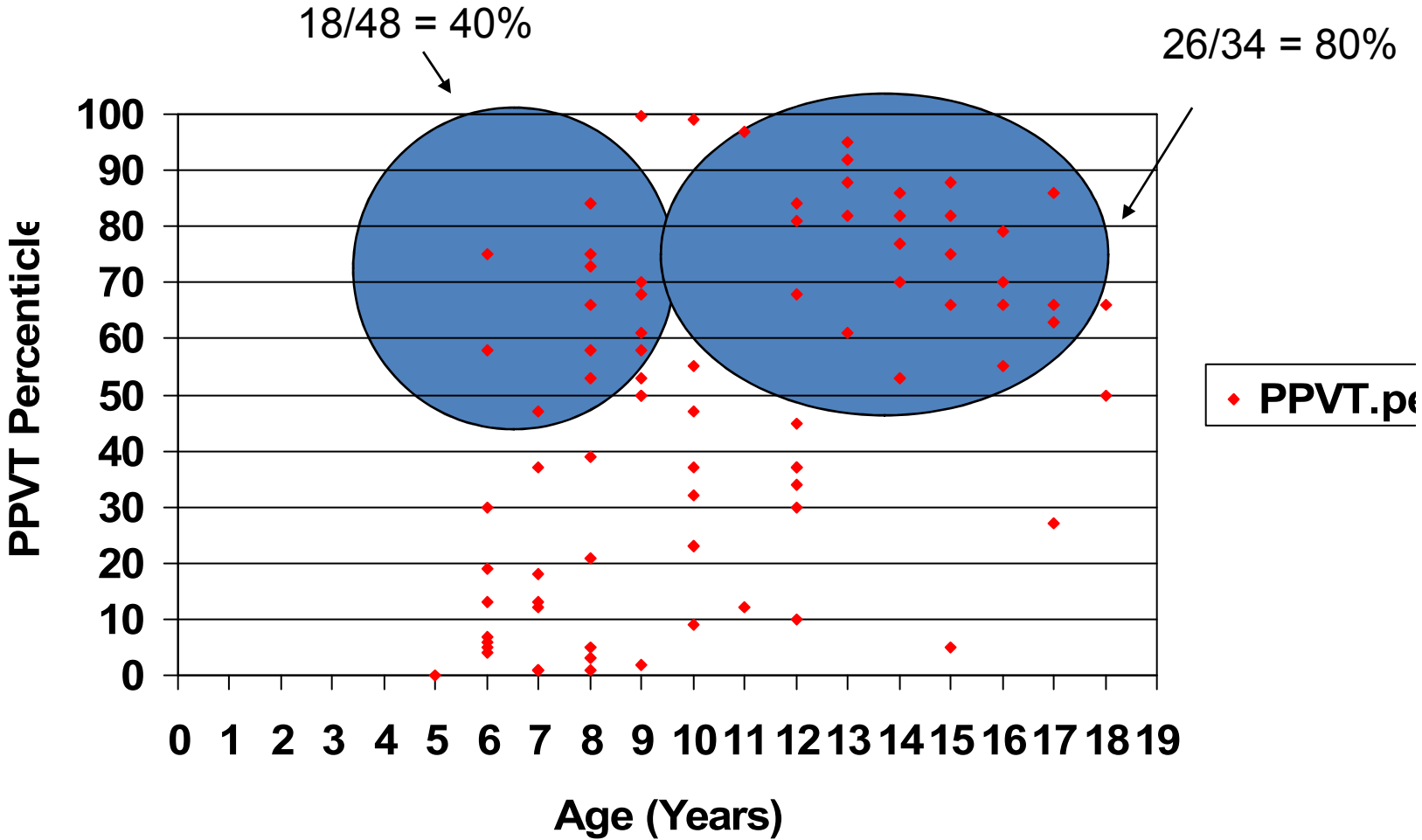
# English and Chinese Productive Vocabulary



# Comparison of Chinese and English Productive Vocabulary



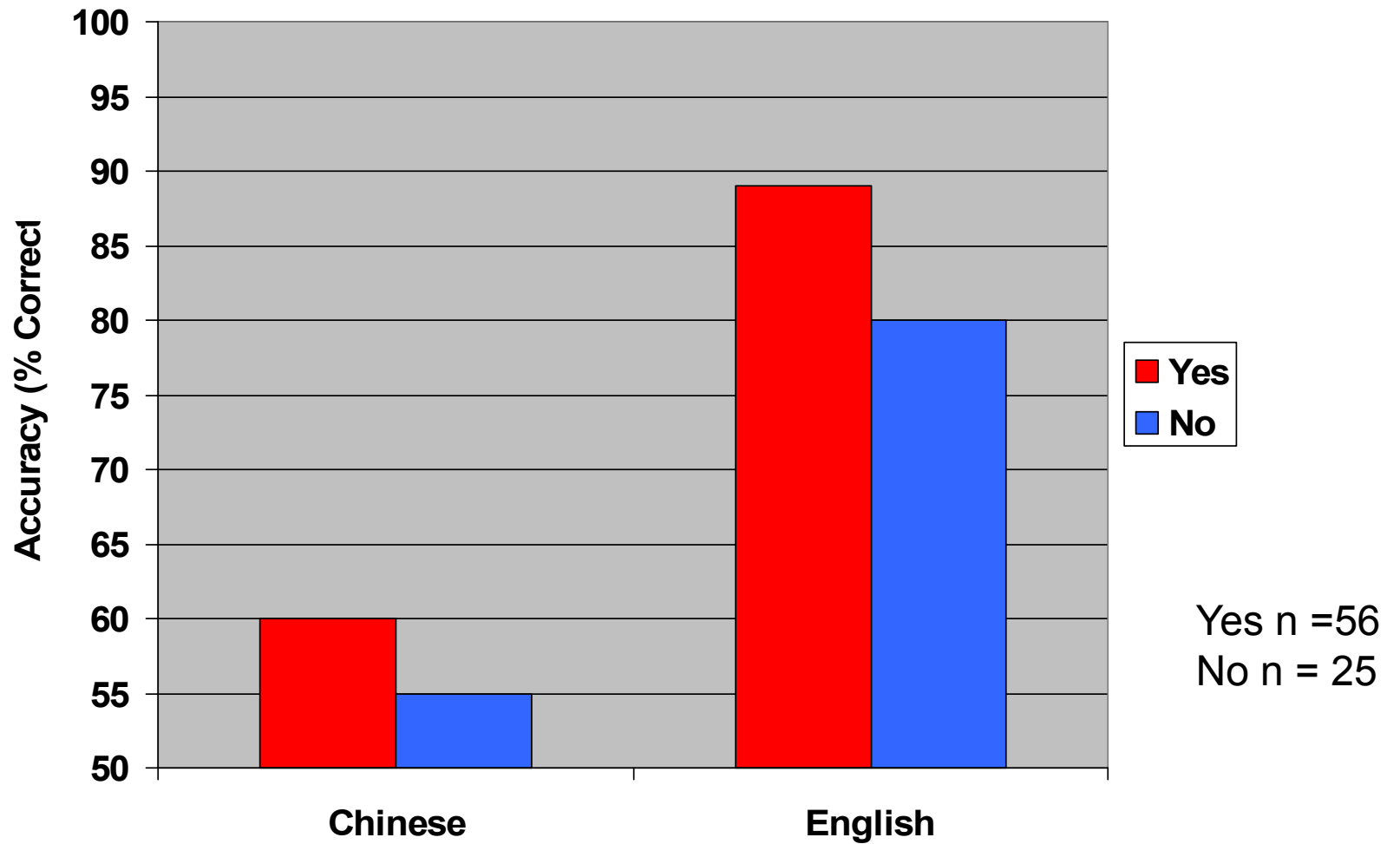
# English Receptive Vocabulary – Comparing Bilinguals and Monolinguals



# What Accounts for Variance?

- Parents' education level: no
- Visiting home country: moderate effect
- Chinese language classes: no effect

# Effects of Going to Chinese Schools



# What Accounts for Variance?

- The Amount of Chinese Used at Home

	Chinese Scores
Father	.29*
Mother	.21
Siblings	.21
TV	.27*

# School Age (5-18 years): Conclusions

- In about 1-2 years, English takes over and become the dominant language of the bilinguals.
- By the time they are in middle school, these bilinguals' English abilities (in the aspects tested) are at least at the same level as their English monolingual peers.
- There are considerable individual differences in the development of L1. The attainment of strong home language skills does not sacrifice English proficiency.

# School Age (5-18 years): Conclusions

- More Chinese use at home predicted higher level Chinese proficiency.
- There is little evidence that parents' educational level, the frequency of going to Chinese schools or visiting home country is related to Chinese frequency.
- More factors need to be investigated, such as the quality of parental involvement.

# School Age (5-18 years): Implications

- Increase the amount of home language used at home.
- Improve the quality of weekend/afterschool home language instructions

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# Immigrant Children

- How long does it take for these children to acquire English proficiency?
- Which aspects of English language are particularly challenging for them?
- What happens to their home language once English immersion begins?
- What factors contribute to their English learning and home language maintenance?

# An On-going Study of Bilingual Lexical Development

# Participants

- 67 immigrant children
- Female: 38; Male: 29
- Mandarin / Cantonese as home language
- Age of arrival: 9 – 17 years; mean: 14 years
- Current age: 14-20 years; mean: 17 years
- Length of US stay: 1-9 years; mean: 4 years

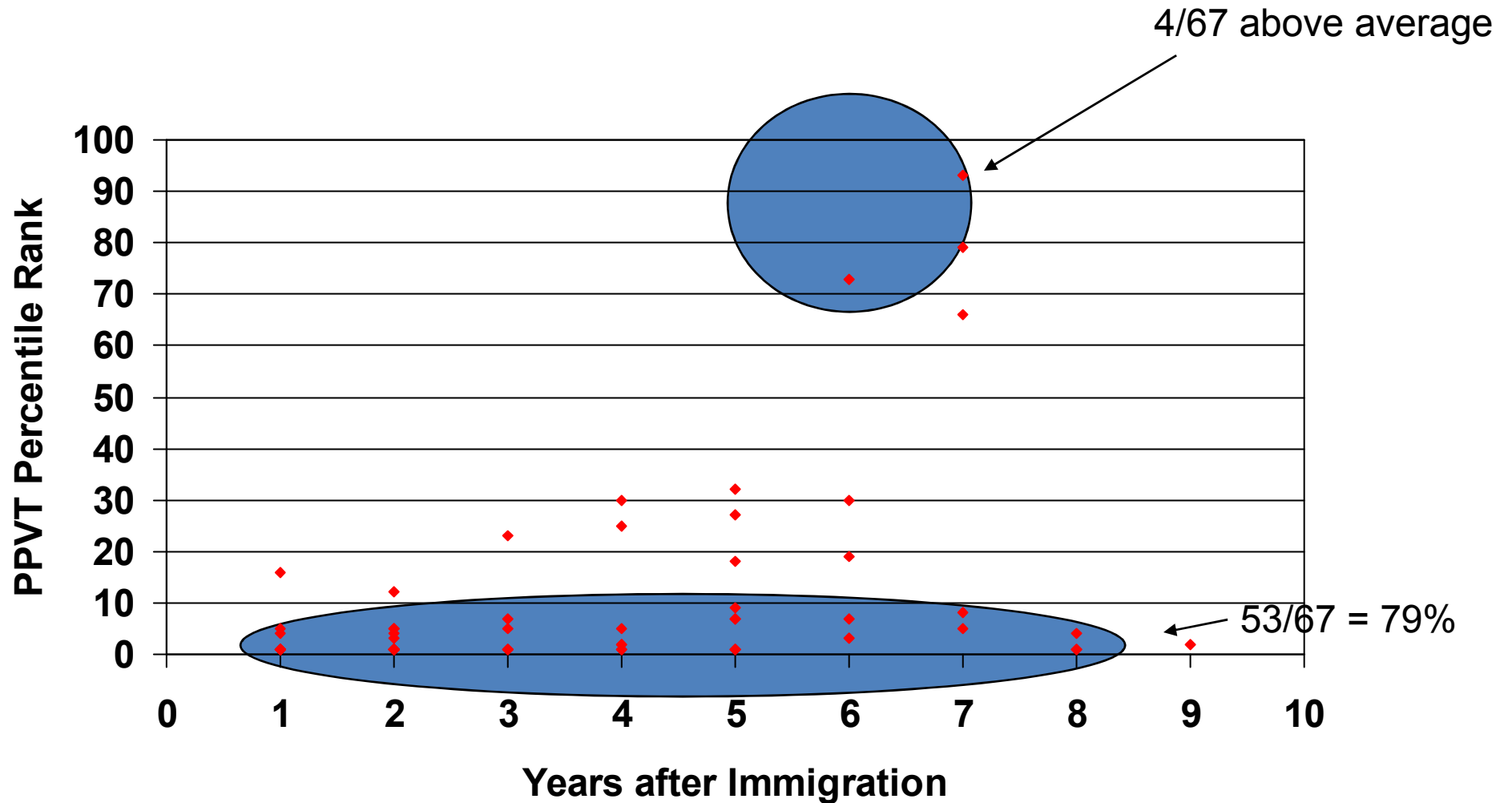
# Participants

- Parent Educational Level

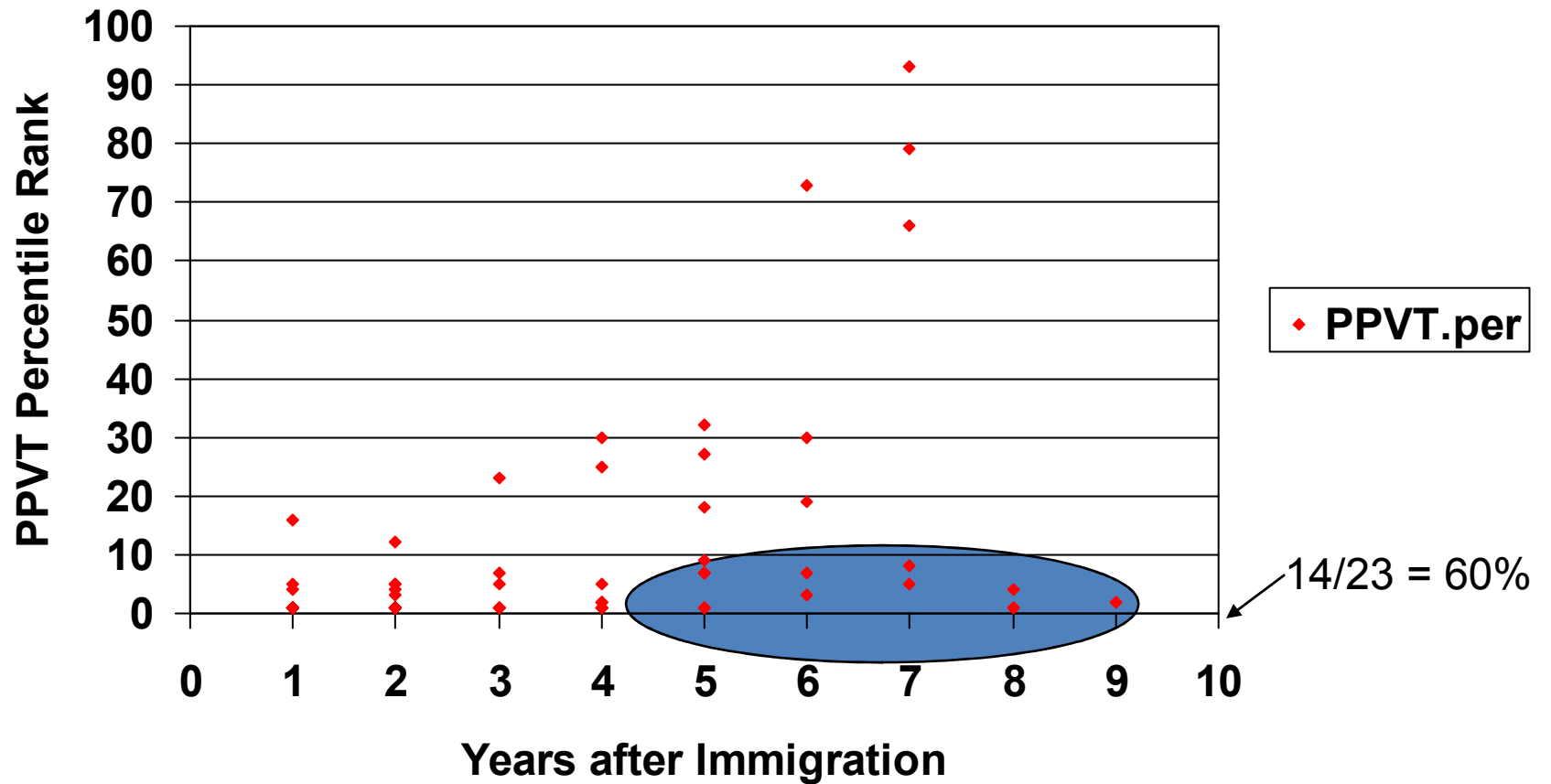
Father: 50% high school diploma or below  
50% college degree or above

Mother: the same

# English Receptive Vocabulary



# English Receptive Vocabulary



# What Accounts for Variance?

- Parental Educational Level? Weak trend; spread out of educational level & occupation, performance clustered at low end;
- Home language environment? pretty homogenous;

# What Accounts for Variance?

- Case 1: High Education & Low Performance
- Background: 17-year old female; aoa: 10 years; father: ph.d., fluent English; mother: college degree; moderate English; 3 years of ESL;
- Performance: 18% percentile;

# What Accounts for Variance?

- Case 2: High Education & Low Performance
- Background: 18-year old female; aoa: 10 years; father: college, moderate English; mother: college; moderate English; 2 years of ESL;
- Performance: 1% percentile;

# What Accounts for Variance?

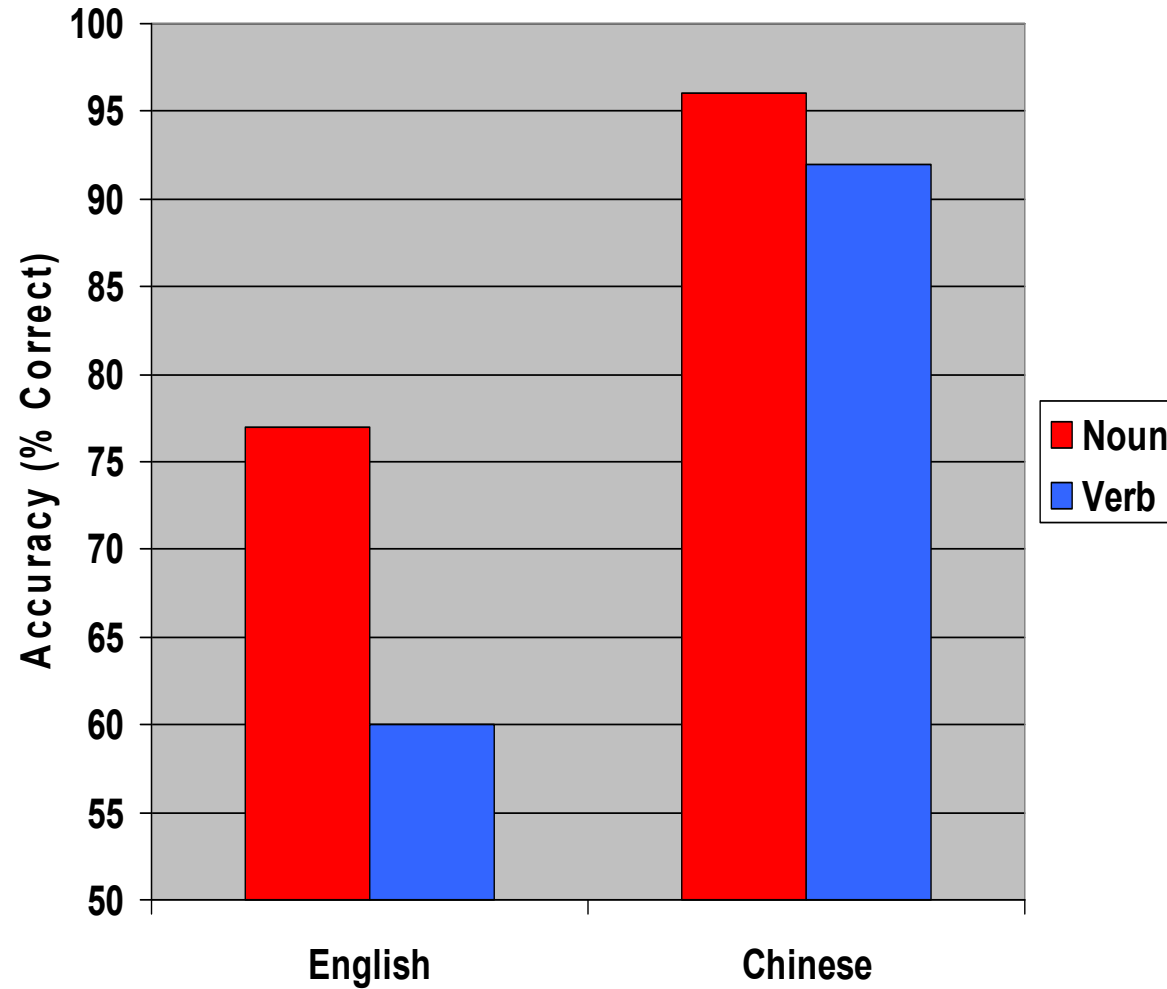
- Case 3: Low Education & High Performance
- Background: 17-year old female; aoa: 10 years; father: driver, high school, limited English; mother: driver; high school; limited English; 2 years of ESL;
- Performance: 93% percentile;

# What Accounts for Variance?

- Parental Support ?
- School Support ?
- Community Support ?
- School transition research by Ed Seidman

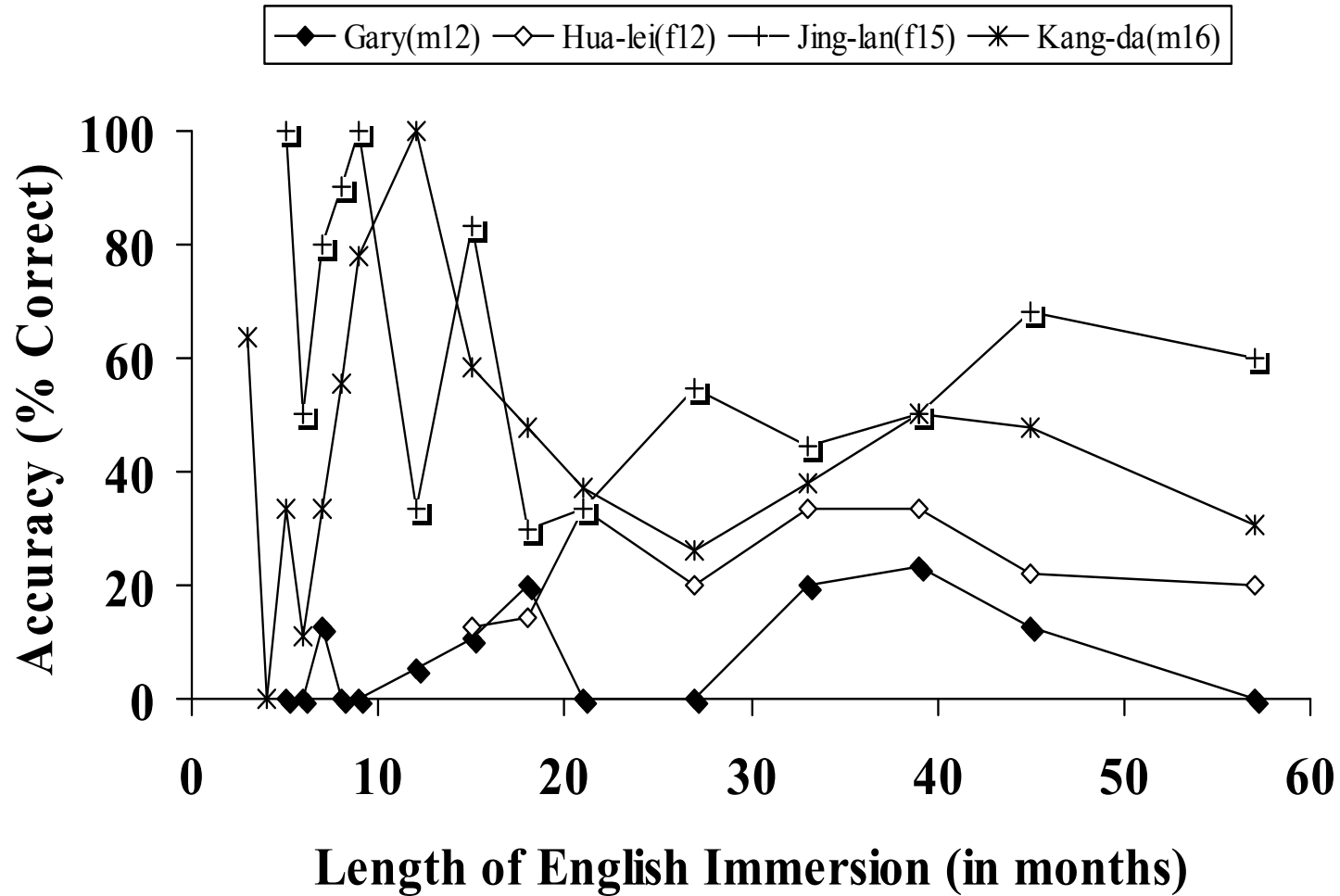
Which Aspects of English Are  
Particularly Challenging?

# Which English Words are Harder to Learn?

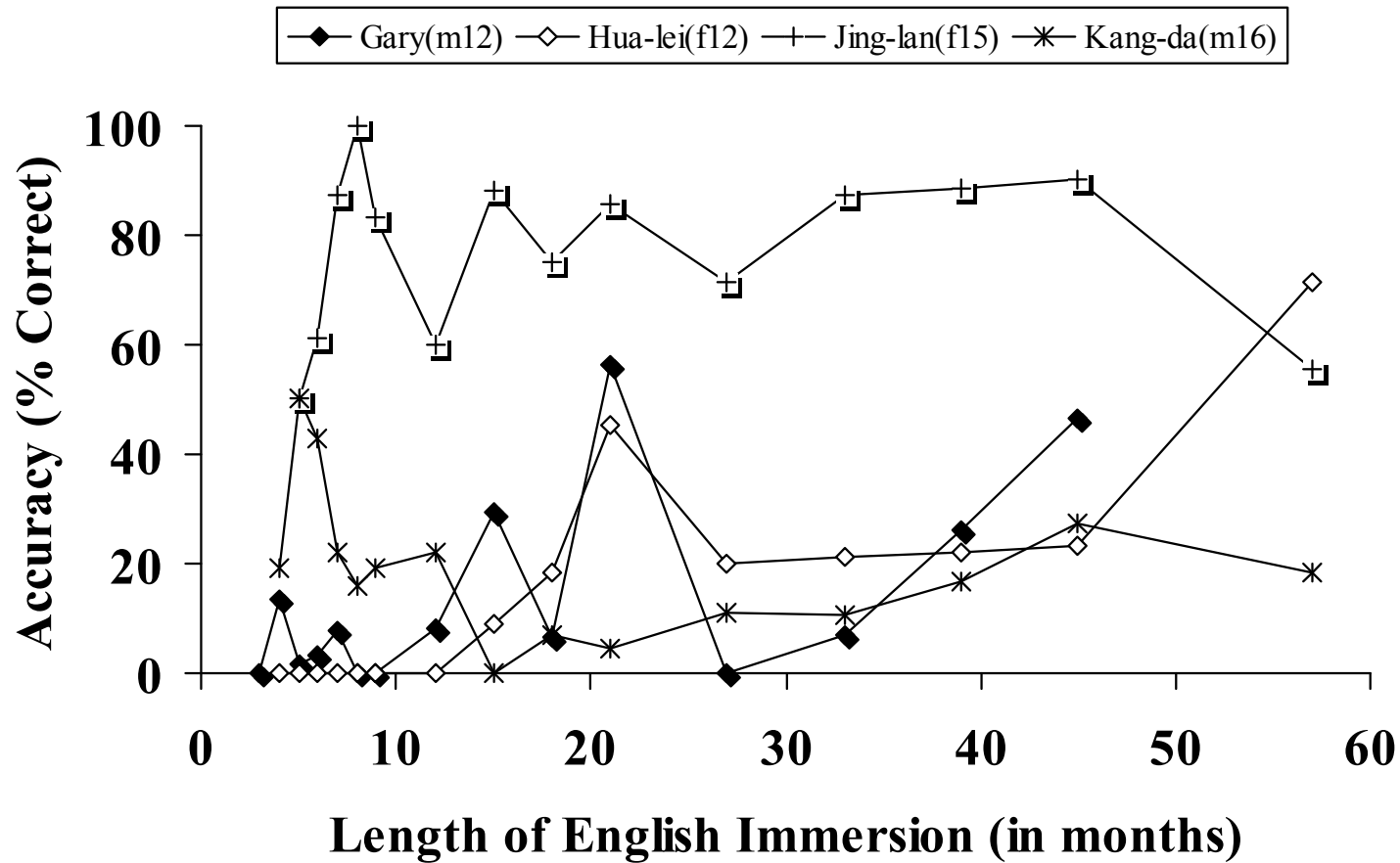


Morphology

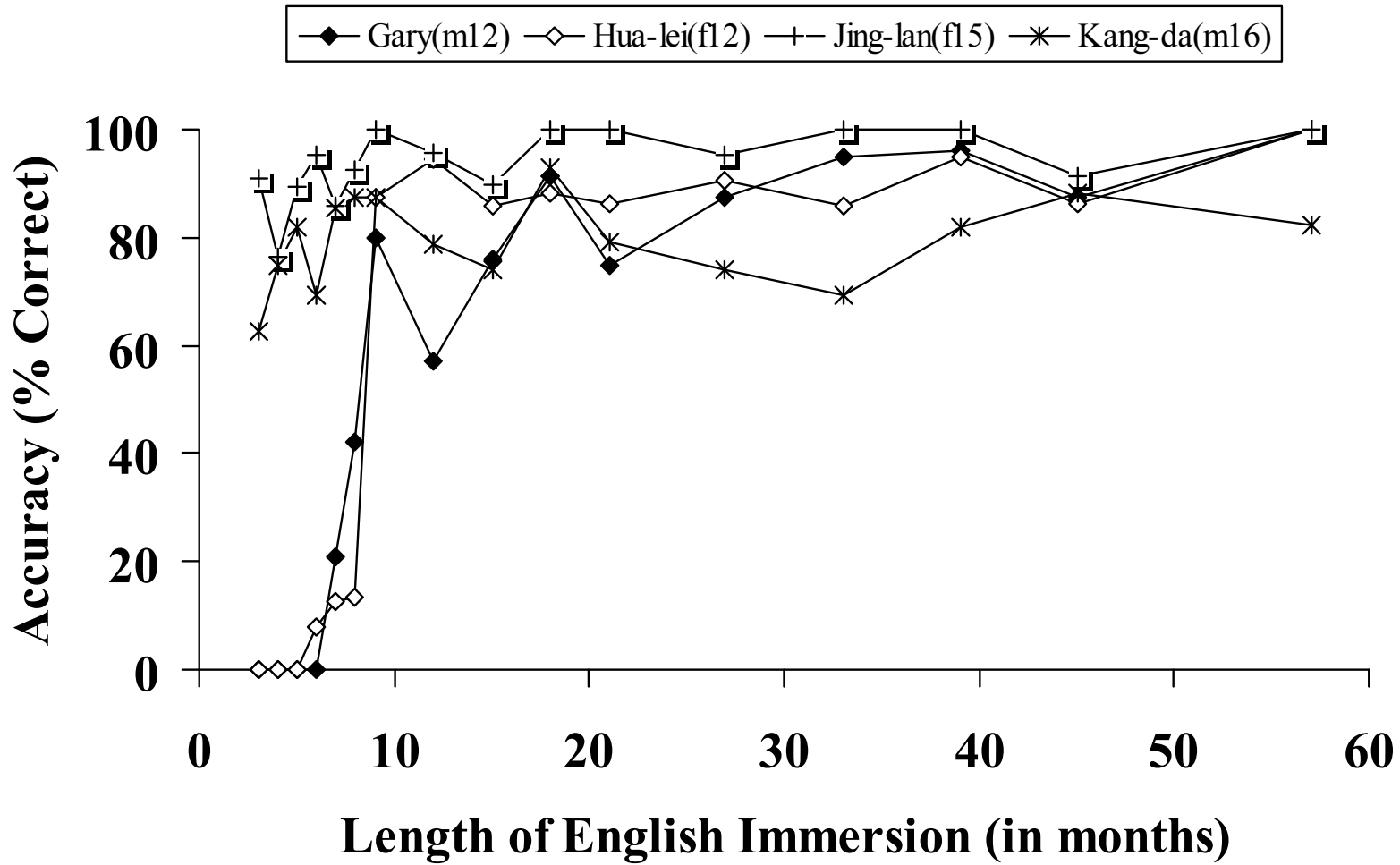
# Regular Past Tense -ed



## Third Person Singular – s

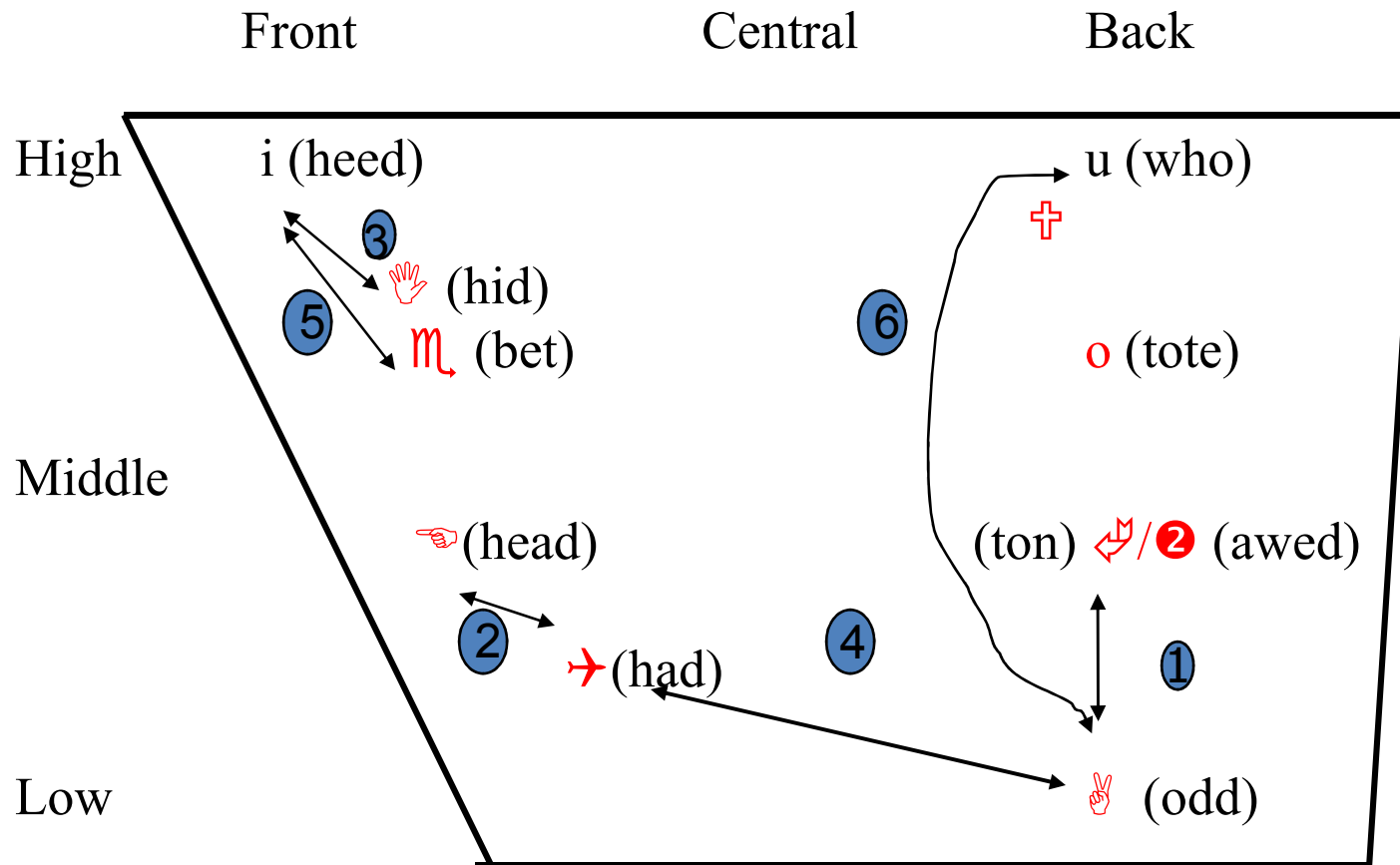


# Present Progressive – ing



# Phonology

# Ordering of Vowel Pairs Difficulty



# Summary

- Adolescent immigrants experience significant challenges in their English learning.
- After over five years of English schooling, a large number of them are still at the bottom percentile ranks in basic vocabulary skills.
- The reasons for this slow progress are unclear at this point. Future research should investigate important factors such as family and school support.

# Summary

- Research findings point to challenging aspects of English language for adolescent immigrants (e.g., verbs for vocabulary, past tense and third person singular for morphology, similar sounds absent in home language).
- These challenges are consistent with human cognition systems underlying language learning and processing.

# Implications

- Among foreign-born bilinguals, those immigrated at an older age need to receive greater attention and support from parents and schools.
- English language instructions should target the linguistic aspects most challenging to this population.

# Go Deeper and Broader

- Language & Academic Performance
- Language & Academic Performance & Psychological Well-being

# Acknowledgements - Grants

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Julissa Collado, Francia Aquino-Garcia, Changmo Jeung

Thanks to All the Families  
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