

Bowen Wang-Kildegaard
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EDUCATION

- PhD** **University of California, Berkeley**
 Education, expected May 2024
 Concentration: Learning Sciences and Human Development
 Graduate Certificate in Applied Data Science (in progress)
- Dissertation: The effect of form-meaning consistency on word learning through reading: Are pseudo-neighbors harder to learn?*
 Anne Cunningham (Chair), Mahesh Srinivasan, Sophia Rabe-Hesketh
- MSc** **University of Oxford**
 Applied Linguistics and Second Language Acquisition, 2017
- BA** **Sun Yat-Sen University (Guangzhou, China)**
 English, 2016

PUBLICATION

Wang-Kildegaard, B., & Ji, F. (2023). Context synthesis accelerates vocabulary learning through reading: The implication of distributional semantic theory on second language vocabulary research. *Applied Linguistics*. DOI: 10.1093/applin/amad014. (5-year IF: 5.6)

TEACHING RECOGNITIONS & CERTIFICATES

- 2023 & 2022 | Nominated for Outstanding Graduate Student Instructor Award (UC Berkeley)
 2021 – 2023 | Received **perfect or near-perfect student evaluations (7 on the Likert scale)**
- 2023 | Certificate in Teaching and Learning in Higher Education (UC Berkeley)
 2020 | Certificate in Remote Instruction (UC Berkeley)
 2018 | Cambridge Certificate in Teaching English to Speakers of Other Languages (CELTA)

TEACHING EXPERIENCE

Graduate Student Instructor - UC Berkeley, Berkeley School of Education

Hierarchical and Longitudinal Modeling (Fall 2021, 2022, 2023)
*Data Analysis in Educational Research II** (Spring 2021, 2022)
*Data Analysis in Educational Research I** (Fall 2020, 2021, 2022)

- Taught weekly lab sections on statistical concepts and analyses (e.g., hypothesis testing, t-test, ANOVA, multiple linear regression, logistic regression, hierarchical/multilevel linear/logistic models) using Stata
- Mentored students in statistical analysis for behavioral and social science research

Graduate Student Instructor - UC Berkeley, Cognitive Science Program***Introduction to Cognitive Science*** (Fall 2019 & Spring 2020)

- Taught weekly discussion sections on key concepts and debates in cognitive science
- Mentored students in research proposals for behavioral experiments
- Presented guest lecture on cognitive science of second language acquisition

Reader - UC Berkeley, Department of Psychology & Cognitive Science Program***Basic Issues in Cognition*** (Fall 2020)

- Mentored students in research projects and presentations
- Presented guest lecture on cognitive science of second language acquisition

English (TOEFL & IELTS) Teacher - Shinyway Education (Spring 2018)

- Taught strategies for improving academic writing skills via extensive reading
- Mentored students by providing feedback on academic writing

RESEARCH GRANTS

Schwab Dyslexia & Cognitive Diversity Center Innovations Research Grant *2021-present*
 Testing a hypothesis of multi-layer network of orthographic neighbors via an innovative measure of orthographic knowledge (Student PI)

Student Creativity Training Program Research Grant (China) *2015-2016*
 Matrix-Map note system and its application in note-taking (Student PI)

SELECTED HONORS

Taylor & Francis Award | The Society for the Scientific Study of Reading *2021*
 Data Science for Social Justice Fellow | UC Berkeley, CA *2023*
 Graduate Remote Instruction Innovation Fellow | UC Berkeley, CA *2020*

FORTHCOMING SUBMISSIONS

Wang-Kildegaard, B., Srinivasan, M., Cunningham, A., & Rabe-Hesketh, S. The effect of form-meaning consistency on word learning through reading: Are pseudo-neighbors harder to learn?

Wang-Kildegaard, B., & Ji, F. Spelling "difficolt" words: A more nuanced measure of lexical quality based on orthographic neighborhood.

Wang-Kildegaard, B., & Irey, R. Heterogeneous effects of morphology-based intervention for dyslexia at varying levels of phonological awareness: Evidence from latent regression analysis.

Cooper, B., **Wang-Kildegaard, B.**, & Chinchilla, A.* Investigating the intersectional gap for culturally and linguistically diverse children in special education.

* = *student mentee*

WORKS IN PREPARATION

Wang-Kildegaard, B. Simulating the Matthew effect of word learning through reading using distributional semantic models.

Wang-Kildegaard, B., & Ji, F. Operationalizing context informativeness for word meaning inference through contexts: Comparing computational models and human judgments.

Wang-Kildegaard, B. & Cai, Q.* Quantifying difficulty of long word recognition and spelling using information entropy and machine learning: Evidence from response time data.

Cai, Q.* & **Wang-Kildegaard, B.** Balancing bilingualism: Unveiling compensatory pathways for enhanced reading performance in US students via PIRLS 2021 analysis.

* = *student mentee*

CONFERENCE PRESENTATIONS

Irey, R., Gutmann, E., **Wang-Kildegaard, B.**, Fox, S., Voges, M., Shabash, M., Watson, C., Gorno-Tempini, M. (2023, October). *Who benefits most from morphology-focused instruction? Investigating ability profiles of fourth grade students with dyslexia.* [poster]. International Dyslexia Association Annual Reading, Literacy, and Learning Conference, Columbus, OH.

Irey, R., **Wang-Kildegaard, B.**, Watson, C., Gorno-Tempini, M., Cunningham, A. (2023, February). *Investigating the effectiveness of morphological instruction for fourth grade students with dyslexia.* [talk]. Annual Meeting of the Pacific Coast Research Conference, San Diego, CA.

Wang, B., Irey, R., Watson, C., Cunningham, A. E., Gorno-Tempini, M. L., Brown, M., Gutmann, E., Fox, S., & Voges, M. (2022, July). *Effectiveness of systematic morphological instruction for students with dyslexia: Evidence from latent regression analysis* [talk]. Society for the Scientific Study of Reading Annual Meeting, Newport Beach, CA, United States.

Cooper, B., & **Wang, B.** (2022, April). *Investigating the intersectional gap for bilingual children in special education* [talk]. American Educational Research Association Annual Meeting, remote.

Wang, B., & Cunningham, A. (2021, July). *Spelling "dificolt" words: A more nuanced measure of lexical quality based on orthographic neighborhood* [talk]. Society for Scientific Studies of Reading Annual Meeting, remote.

Wang, B. (2021, February). *Toward a more nuanced measurement of word spelling knowledge based on item response theory* [talk]. International Objective Measurement Workshop, remote.

- Wang, B., & Cunningham, A.** (2020, July). *Testing a hypothesis of multi-layer network of orthographic neighbors via a novel measurement of orthographic knowledge* [poster]. Society for Scientific Studies of Reading Annual Meeting, Newport Beach, CA, USA (Conference canceled).
- Wang, B.** (2017, October). *A novel type of text modification and its implications for vocabulary learning through reading* [talk]. Oxford Educational Cloud Conference: Language and Communication, Oxford, UK.

MENTORING EXPERIENCE

- Mentored 100+ undergraduate/graduate students through research projects for courses via individual or group consultations and written feedback on experimental design and statistics
- Trained undergraduate research assistants in my funded research project via seminars, workshops, and feedback
- Provided consultation on methods, statistics, and academic writing to earlier-stage graduate students
- Provided consultation on teaching strategies and pedagogy to less experienced instructors
- Provided pro-bono one-on-one mentoring to help low-income students with English skills and undergraduate/graduate school applications

PEER REVIEW EXPERIENCE

The Society for the Scientific Study of Reading (SSSR) Annual Meeting	2024
American Educational Research Association (AERA) Conference Division C - Learning and Instruction SIG – Vocabulary	2023

WORK EXPERIENCE

Graduate Student Researcher – UC San Francisco Dyslexia Center *Spring – Fall 2021*
Programmed cognitive assessments; analyzed effect of reading intervention for children with dyslexia (currently finalizing first-author paper in collaboration with the UCSF team)

English Curriculum Specialist - Enuma Learning (Berkeley, CA) *Summer 2019*
Applied cognitive science on language learning to evaluate and improve English curriculum for second language learners

Educational Research Scientist - Amira Learning (San Francisco, CA) *Summer 2019*
Applied research on reading development to evaluate and improve literacy programs for second language learners and children with dyslexia

RELEVANT SKILLS

Language: English (near-native fluency), Mandarin (native), Japanese (beginner), French (beginner)

Computational Programming and Statistical Skills:

- programming online behavioral experiments using Inquisit Lab, PsychoPy/Pavlovia, and Gorilla
- statistics (e.g., hierarchical linear & logistic models (HLM) and structural equation modeling (SEM) via Stata & R)
- computational modeling/machine learning/natural language processing via Python
- psychometrics: development and validation of cognitive assessments via item response theory (IRT)
- impact analysis of intervention programs
- analysis of large-scale national and international datasets
- qualitative data analysis (e.g., interview, think-aloud, stimulated recall, video/audio analysis)