# Erik Erwin Jahner Curriculum Vitae 02/01/25

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Dr. Erik Jahner is currently an online Course Designer and Adjunct Professor of Psychology at Fresno Pacific University. He has completed post-doctoral research at the *Center for Affective Neuroscience, Development, Learning and Education* (CANDLE), *University of Southern California* (USC), under the direction of Prof Mary Helen Immordino-Yang and at *National Institute of Education in Singapore* the *Office of Educational Research*. His research interest is in social-affective neuroscience in education settings. In all his positions, Erik has acted as a liaison between researchers and practitioners in the field of education. This includes the development of large grants, management of university departments, and data collection and analysis of data in education contexts. He has worked primarily with a diverse group of students including those who are nontraditional, disenfranchised, from lower socioeconomic backgrounds, and neurodivergent.

He also has significant experience in public outreach, translation, and working with students and teachers of all backgrounds and ability levels. He has taught psychology courses online at Fresno Pacific University working primarily with adult learners. These courses included Biopsychology, Sensation and Perception, Behavioral Psychology, Cognition, Development Across the Lifespan and Introductory statistics. At University of California Riverside he taught courses on Student Exceptionalities, Reading, instruction, and Learning and the brain. He also has extensive experience working with second language learners and struggling students at a Learning Center at the California State University Long Beach.

Erik recently completed a tenure at Brookings institute in Washington D.C. where he is collaborating with authors evaluating current research and translating into a book on the science of adolescent engagement styles. Book accepted for publication February 2025. In addition, Erik regularly contributes monthly book reviews to the "Learning and the Brain" organization and has published three book chapters on understanding the neuroscience of empathy, personal interests, and creativity.

In terms of analysis, he has strong skills working with large data sets using factor analytic methods and uses a range of qualitative and quantitative methodologies, including MRI anatomical analyses of cortical thickness and volume, functional MRI analyses of tasks and connectivity (static and lagged), survey measures (including the development of surveys using factor analytic methods and interviews), qualitative analyses of interviews, and acoustic analysis of vocal features related to emotion and physiological regulation.

# **EDUCATION**

Ph.D. Educational Psychology, University of California Riverside 2017M.A. Linguistics, California State University Long Beach 2012B.A. Linguistics, California State University Long Beach 2007

Additional Certification: Human Connectome Project Certification (Summer 2017) – training in neural data collection protocol and data usage.

# **TEACHING EXPERIENCE (cumulatively 5 years) ONLINE TEACHING EXPERIENCE (cumulatively 3 years)**

#### Fresno Pacific University Adjunct Professor of Psychology

Biopsychology (Spring 2022, Fall 2022, Spring 2023, Fall 2023, Spring 2024) Sensation and Perception (Spring 2022, Fall 2022, Spring 2023, Fall 2023, Spring 2024) Cognition (Summer 2022, Spring 2023, Fall 2023, Spring 2024) Psychology of Behavior (Spring, Summer 2024, Spring 2025) Development Across the Lifespan (Spring 2025) Introductory Statistics (Spring 2024)

# University California Riverside Adjunct Instructor

Reading and Language Development [Credential Program] (Winter 2016) Learning and Instruction [Educational Psychology, Undergraduate] (Fall 2014, Summer 2015, Fall 2016) The Learner [Educational Psychology, Graduate] (Summer 2014, Summer 2016) **Teaching Assistant (supervised teaching)** Student Exceptionalities (Spring 2016) Statistics using R (Fall 2016)

#### California State University Long Beach Supplemental Instructor

Mythology (Fall 2010, Fall 2012) Biology (Spring 2010, Fall 2010, Spring 2011, Fall 2013)

# California State University Long Beach - American Language Institute English Language Learner Instructor

English Phonology (Summer 2010) Advanced Grammar (Summer 2010)

# **TEACHING AREAS/COURSES PREPARED TO TEACH**

Linguistics: Cognitive- and neuro-linguistic topics; Phonology; Grammar; Discourse analysis Psychology: Research methods; Neuroscience; Cognition; Sensation and Perception; Development; Statistics (advanced and introductory); Behavior; Abnormal Psychology Education: Reading and Language Development; Student Exceptionalities; Educational Psychology; Neuroscience of Learning; Language Learning Courses (for Education Students or English Language Learners); Motivation Theory and Application

# **PROFFESSIONAL EXPERIENCE (4 years**

Adjunct Professor of Psychology Fresno Pacific University, California, March 2022-current

Development and delivery of four online courses in Psychology for degree completion students (students who are returning to college after an interruption often with difficult life circumstances or learning differences.).

# Post Doctoral Researcher, Expert Consultant on Learning and the Brain, and Writer; Brookings Institute, March 2023-October 2024

Collaborated with two authors on a book about adolescent development and engagement styles. Translated research for parents and teachers. Assisted in the interpretation and evaluation of interview data of students and what engaged them in school and home.

## Book Review Writer; Learning and the Brain, February 2021-current

https://www.learningandthebrain.com/blog/author/erik-jahner/ Write and publish monthly book reviews for educators and researchers.

#### Post-Doctoral Researcher USC CANDLE, August 2020- December 2022

Managed a two-year study of wellness and neural diversity in a school for a diverse group of low SES girls who for various reasons were not supported by traditional schooling (trauma, violence, learning differences, psychological barriers).

Utilized a large data set to generate a measure of Adolescents' Perceived Value of Constructive Internal Reflection for Social-emotional Growth.

Conducted connectivity and cortical thickness analysis of adolescents and teachers.

# Online Course Designer Psychology Fresno Pacific University, California,

March 2022-current. Completed the development of online courses using H5P, Moodle, and now Canvas interfaces. Design both synchronous (Zoom) and asynchronous courses (video recorded).

# Post-Doctoral Research Fellow OER, NIE Singapore, August 2018 – March 2020

Facilitated conversations and advocated for all stakeholders in the development of a multimillion dollar grant between linguists, neuroscientists, cognitive scientists, and educators in Cambridge University, England and National Institute of Education, Singapore; this led to the development of an international interdisciplinary research center that supports both educator and researcher needs in Singapore. Led the conceptualization and writing of NIE's portion of this grant.

## Associate Instructor, University of California Riverside, 2014-2015

Taught courses in reading and literacy, student exceptionalities, and educational psychology to both teachers seeking credentials as well as teachers earning a master's degree.

# Coordinator, Learning Assistance Center, California State University Long Beach, 2007-2013

Coordinator of Supplemental Instruction, 2010-2013

Coordinated and expanded various centers for learning to support approximately 700 students of diverse low SES backgrounds each year who were not college ready freshmen.

#### Associate Coordinator of ESL Services, 2007-2010

Coordinated a program assisting university students with academic writing skill struggles that were tied to their fluency in standard English.

#### PUBLICATIONS

#### **Journal Publications**

Jahner, E. E., Kundrak, C., Riveros, R., & Immordino-Yang, M. (under review) An Instrument for Measuring Adolescents' Perceived Value of Constructive Internal Reflection for Social-emotional Growth. *Frontiers in Education* 

Jahner, E. E. (2021, April). Can You Develop New Interests? an Improved Instrument for Measuring Implicit Theories of Interest Development. *Frontiers in Education* (Vol. 6, p. 131). Frontiers.

#### **Book Chapters**

Jahner, E. E., Raveendaran, S. (2023). Being Conscious of "Interest" in Education. In D. Hung, J. Bin Abdul Aziz, Moving Beyond Grades to Purposeful Learning.

Jahner, E. E. (2019). Living Narratives: The Neurobiology of Empathy. In E. M. Gokcigdem (Ed.), Designing for Empathy: Perspectives on the Museum Experience (pp. 31-47). Rowman & Littlefield.

Gotlieb, R., \*Jahner, E., Immordino-Yang, M.H., Kaufman, S.B. (2016) How social-emotional imagination facilitates deep learning and creativity in the classroom. In R. Beghetto & J. Kaufman (Eds.), *The Cambridge Companion to Nurturing Creativity in the Classroom, second edition.* Cambridge: Cambridge University Press.

#### Dissertation

Jahner, E. (2017) Resting as knowing: A lagged structure analysis of resting state fMRI with application to mind wandering during oral reading in diverse low SES adolescents.

#### GRANTS

2019-2020 "Persistent Neural Differences for Adolescents with Deeply Developed Interests: Social and Psychological Systems for Support and Transfer Through Neurobiology." ERFP Planning Grant (PI; Total Grant=\$SGD 19,993)

2020-2024 "Center for Lifelong Learning and Individualized Cognition." NRF (CoPI responsible for \$SGD 700,000; Total Grant=\$SGD 3,500,000) \*note that this grant was awarded, but I was unable to continue my participation in the project as a result of me being abroad at the onset of the pandemic.

#### **INVITED LECTURE/WORKSHOP**

2019 November, The Neurobiology of Empathy [NIE]

2019 October, Intrinsic Motivation and Neuroscience Perspective [NIE]

2019 October, Neuroscience and Education: a Dialogue [NIE]

2019 September, An introduction to fMRI Methods and Measurement [NIE]

2019 March, Presentation at Knowledge Building Symposiums on Brain and Learning

2018 October, Confirmatory Factor Analysis Training [NIE]

2018 October, Presentation on fMRI resting state and Education [NIE]

2018 Brain Dynamics Perceptual Repertoire, University of Southern California, Los Angeles

2016 Tools of Mind, Magnolia Science Academy, City of Bell California

2016 The Wandering Mind, University of Southern California, Los Angeles

2015 Neurology of Emotion Summer Camp, University of Southern California, Los Angeles

2011 Strategies for Navigating Intercultural Conflict. Summer Institute on Teaching and Learning:
University Faculty Development Workshop. California State University Long Beach.
2009 Pitch as a measure of activation cost. Psych Day Poster Competition: Second Place Award.
2009 Cognitive Effects of Teaching ESL: an analysis of ESL tutor cognitive difference resulting from one-on-one sessions. Linguistics Student Colloquium.
2008 Referent Accessibility in Children's reading. College of Liberal Arts Student Research Showcase.

## **CONFERENCE ACTIVITY/PARTICIPATION**

# **Papers Presented**

\*Jahner, E. E., Kundrak, C., Riveros, R., & Immordino-Yang, M. (2022) An Instrument for Measuring Adolescents' Perceived Value of Constructive Internal Reflection for Social-emotional Growth. International Mind Brain Education Society.

\*Jahner, E. (2019) Language Power and Isolation: Translating Neuroscience to Education. Society for Neuroscience Singapore Chapter, Singapore.

\*Jahner, E. & Hamilton, E. (2018) Learning to see through science: online collaborative maker spaces in Kenya. American Educational Research Association.

\*Jahner, E. & Lord, C. (November 2008) Mapping intonation to text: an acoustic analysis of improved reading fluency. SCOPHO (Southern California Workshop on Phonetics and Phonology). Pomona, California.

#### **Panel Presentations**

Cockerham, D., \*Jahner, E., Gokcigdem, E., Corbin, R., & Livingston, T. (2017) Walk a Mile in My Shoes: Science Centers as Bridges to Empathy and Social Change". Association of Science Technology Centers Conference.

Cockerham, D., Gokcigdem, E., \*Jahner, E., Corbin, R., & Livingston, T. (2016) "The Human Element" as Disruptive Innovation: Interdisciplinary perspectives on museum roles in socioemotional development. Association of Science Technology Centers Conference.

\*Jahner, E., Lenz, K., & Luarca, J. (November 2011) Teaching International Students the Skills for Success in an American University. College Reading and Learning Association, San Diego, California.

#### **Posters Presented**

\*Jahner, E., Yang F., & Immordino-Yang, M. (2018) Streams of thought: An ICA methodology for lagged resting state analysis. Cognitive Neuroscience Society.

\*Jahner, E., & Abdul Razak, K. (2017) Do I belong here? Belongingness, motivation and perceived communicative competence through active learning and author engagement in neuroscience. Society for Neuroscience.

\*Jahner, E., Yang F., & Immordino-Yang, M. (2017) Prepared to read. Mind wandering during oral reading correlated with resting state fMRI: A lagged analysis. Society for Neuroscience.

\*Jahner, E., Yang F., & Immordino-Yang, M. (2017). Resting state temporal dynamics and mind wandering frequency during reading. Cognitive Neuroscience Society.

\*Jahner, E., Pound, V., Immordino-Yang, M., & Yang, F. (2014) Cultural literacy, intellectual curiosity, academic resilience and the road to "self as scientist": Qualitative analyses of low-SES adolescents' experiences in a neuroscience camp. International Mind Brain Education Society.

\*Jahner, E., & Smith, S. (July 2009) Accessibility of Referents Revealed by Relative Pitch. IPrA (International Pragmatics Association) Conference, Melbourne, Australia.

Lord, C., & \*Jahner, E. (April 2009) Does the Sentence End Here? University Celebration of Research, Scholarly and Creative Activity at Society for the Scientific Study of Reading. Prague SSSR. Poster.

# **COMMITTEE SERVICE**

Regular presentations at high schools on neuroscience in areas of drugs and learning. Future of Research into Adult Learning in Singapore (2019-2020)

# SELECT ADDITIONAL RESEARCH EXPERIENCE AND COLLABORATIONS

Dr. Eric Hamilton – Collaboration (June 2017 to 2018)

Assisted in international computational communication workshops and educational research development in Kenya in 2017. Conducted and developed qualitative interviews at two school sites.

Dr. Mary Helen Immordino-Yang – (Winter 2014 to present)

Assisted in the development, acquisition, and analysis of intervention and survey instruments at a local high school including the use of factor analytic methods. Conducted interviews and assisted in fMRI data acquisition and analysis in projects seeking to understand adolescent affective development. Collaborated in the development and implementation of summer workshop for adolescents on affective neuroscience.

Dr. Daphna Oyserman – (Winter 2016 to 2018)

Collaborated in the use of factor analytic and structural equation modeling to explore student socialemotional-imagination and its impact on learning.

Dr. Khaleel Abdul Razak – Collaboration. (Spring 2014 to Spring 2018) Developed an instrument and conducted classroom observations to evaluate the effectiveness of active learning course on animal behavior and neuroscience for undergraduates at UC Riverside. Instrument evaluated community engagement and student motivation.

#### **PROFESSIONAL MEMBERSHIPS OR AFFILIATIONS**

Society for Neuroscience (2010-2024) Society for the Neurobiology of Language (2010-2023) Cognitive Neuroscience Society (2013-2024) International Mind, Brain, and Education Society (2013-2023) American Educational Research Association (2016-2022) International Pragmatics Association (2009-2014)

# **COMPUTATIONAL SKILLS**

Statistical Software: Mplus, SPSS, MATLAB, R
Cloud Computing: Amazon Web Services (data processing with virtual machines)
Machine Learning: both supervised and unsupervised methods
Academic: Moodle, Canvas, Blackboard, H5P, Oracle, PeopleSoft, Microsoft Access, Google Classroom
Neuro-science Software: Freesurfer, Conn, NITRC, FSL, AFNI, SPM
Programing Languages: Bash, Python (statistics, graphics and research), Java
Graphics Software: Blender, Maya, Zbrush, Adobe Premiere, Camtasia
Other Software: PRAAT (linguistic acoustic software); Qualtrics (advanced level)

# Languages

English - Primary language Indonesian - moderate speaking reading and writing Chinese - level 2 beginner speaking Russian - level 2 beginner speaking