# Katerina Schenke

## Professional History

- 2016 to current **Senior Researcher**, National Center for Research on Evaluation, Standards, and Student Testing, University of California, Los Angeles.
  - 2015 to 2016 **Postdoctoral Scholar**, *University of California*, *Los Angeles*, Graduate School of Education and Information Studies *Advisor*: Li Cai.

#### Education

- 2015 **Ph.D.**, *University of California*, *Irvine*, School of Education *Chair*: Jacquelynne S. Eccles.
- 2009 **B.A.**, *University of California*, *Los Angeles*, Psychology and German and Minor in French and Francophone Literature.

#### Peer-Reviewed Publications

Ruzek, E., Jirout, J., **Schenke, K.**, Vitiello, V., Whitaker, J.E.V., & Pianta, R. (2019). Using PreK children's self-reports to measure their academic orientations: A psychometric evaluation. *Early Childhood Research Quarterly*.

Ruzek, E. & Schenke, K.(2019). The Tenuous link between classroom perceptions and motivation: A within-person longitudinal study. *Journal of Educational Psychology*, 111(5), 908-917.

Jiang, S., **Schenke, K.**, Xu, D., Eccles, J.S., & Warschauer, M. (2018). Crossnational comparison of gender differences in the enrollment in and completion of science, technology, engineering, and mathematics Massive Open Online Courses. *PLOS ONE*.

Banerjee, M., Schenke, K., Lam, A.C., & Eccles, J.S. (2018). The Roles of teachers, classroom experiences, and finding balance: A qualitative perspective on the experiences and expectations of females within STEM and non-STEM careers. *International Journal of Gender, Science and Technology*, 10(2), 288-307.

Lee, K. T. H., Lewis, R. W., Kataoka, S., **Schenke, K**, & Vandell, D. L. (2018). Out-of-School Time and Problem Behaviors during Adolescence. *Journal of Research on Adolescence*, 28(2), 284-293.

Schenke, K., Ruzek, E., Lam, A. C., Karabenick, S., & Eccles, J. (2018). To the means and beyond: Understanding variation in students' perceptions of teacher emotional support. *Learning and Instruction*, 55, 13-21.

Schenke, K. (2018). From structure to process: Do students' own construction of their classroom drive their learning? *Learning and Individual Differences*, 62, 36-48.

Schenke, K., Ruzek, E., Lam, A. C., Karabenick, S., & Eccles, J. (2017) Heterogeneity of student perceptions of the classroom climate: A latent profile approach. *Learning Environments Research*, 20(3), 289-306.

Schenke, K., & Richland, L. E. (2017). Preservice teachers' use of contrasting cases in mathematics instruction. *Instructional Science*, 45(3), 311-329.

Schenke, K., Nguyen, T., Watts, T. W., Sarama, J., & Clements, D. (2017). Differential effects of the classroom on African American and non-African American's mathematics achievement. *Journal of Educational Psychology*, 109(6), 794-811.

mentored student in italics

Casasola, T. S., Schenke, K., Nguyen, T., & Warschauer, M. (2017). Can flipping the classroom work? Evidence from undergraduate chemistry. The International Journal of Teaching and Learning in Higher Education, 29(3), 421-435.

Schenke, K., Rutherford, T., Lam, A. C., & Bailey, D. H. (2016). Construct confounding among predictors of mathematics achievement. *AERA Open*, 2(2), 1-16.

Reimer, L., Schenke, K., Nguyen, T., O'Dowd, D. K., Domina, T., & Warschauer, M. (2016). Evaluating promising practices in undergraduate STEM lecture courses. RSF: The Russell Sage Foundation Journal of the Social Sciences, 2(1), 212-233.

Lam, A. C., Ruzek, E., **Schenke, K.**, Conley, A. M., & Karabenick, S. (2015). Student Perceptions of Classroom Achievement Goal Structure: Is it Appropriate to Aggregate? *Journal of Educational Psychology*, 107(4), 1102-1115.

O'Byrne, W. I., **Schenke, K.**, Willis III, J. E., & Hickey, D. T. (2015). Digital badges: Recognizing, assessing, and motivating learners in and out of school contexts. *Journal of Adolescent & Adult Literacy*, 58(6), 451-454.

**Schenke, K.**, Lam. A. C., Conley, A. M., & Karabenick, S. (2015). Adolescents' help seeking in mathematics classrooms: Relations between achievement and perceived classroom environmental influences over one school year. *Contemporary Educational Psychology*, 41, 133-146.

**Schenke, K.**, Rutherford, T., & Farkas, G. (2014). Alignment of game design features and state mathematics standards: Do results reflect intentions? *Computers and Education*, 76, 215-224.

## Non Peer-Reviewed Publications

Herman, J. Schenke, K., & Griffin, N. (accepted for publication in 2019). Assessing Intrapersonal and Interpersonal Competencies with Games and Simulations. In H F. O'Neil, E. L. Baker, R. S. Perez, & S. E. Watson (Eds.), *Using cognitive and affective metrics in education-based simulation and games*. New York: Routledge.

Schenke, K., O'Neil, H. F., Baker, E. L., & Watson, S. E. (accepted for publication in 2019). A Framework to Assess Interest. In H. F. O'Neil, E. L. Baker, R. S. Perez, & S. E. Watson (Eds.), *Using cognitive and affective metrics in education-based simulation and games.* New York: Routledge.

Hickey, D. & **Schenke**, **K.** (in press). Open Digital Badges and Reward Structures. In K.A. Renninger & S.E. Hidi, S.E. (Eds.) *The Cambridge Handbook on Motivation and Learning*. New York: Cambridge University Press.

Roberts, J. D., Parks, C. B., Chung, G. K. W. K., Redman, E. J. K. H., **Schenke**, **K.**, & Felline, C. (2018). Innovations in evidence and analysis: The PBS KIDS Learning Analytics Platform and the research it supports. In S. Pasnik (Ed.), *Getting ready to learn: Creating Effective, Educational Children's Media.* New York: Routledge.

Hickey, D. T., Itow, R. C., Rehak, A., **Schenke, K.**, & Tran, C. (2013). Speaking personally—with Erin Knight. *American Journal of Distance Education*, 27(2), 134-138.

## Published Conference Proceedings

Jiang, S., Williams, A., Schenke, K., Warschauer, M., & O'Dowd, D. (2014, July). Predicting MOOC performance with week 1 behavior. In J. Stamper, Z. Pardos, M. Mavrikis, & B. M. McLaren (Eds.), *Proceedings of the 7th International Conference on Educational Data Mining*. (pp. 273-275). London, United Kingdom: International Educational Data Mining Society.

mentored student in italics

Han, M., Vu, M., Bediones, C., Tran, C., & Schenke, K., (2014, June). How kids inform the development of a science game. In A. Ochsner, J. Dietmeier, C.C. Williams, & C. Steinkuehler (Eds.), Proceedings of the Games, Learning, and Society 10.0 Conference. (pp. 464-465). Madison, WI: ETC Press.

Tran, C., Schenke, K., & Hickey, D. T. (2014, June). Design Principles for motivating learning with digital badges: Consideration of contextual factors of recognition and assessment. In J. L. Polman, E. A. Kyza, D. K. O'Neill, I. Tabak, W. R. Penuel, A. S. Jurow, K. O'Connor, T. Lee, & L. D'Amico (Eds.), Learning and becoming in practice: The International Conference of the Learning Sciences (ICLS) 2014, Volume 1 (pp. 1027-1032). Boulder, CO: The International Society of the Learning Sciences.

mentored student in italics

Bediones, C., Macalinao, C., McDowd, B., Schenke, K., Tran, C., & Conley, A. M. (2013, June). Are we washing poop?: Unintended consequences in educational game design. In C. C. Williams, A. Ochsner, J. Dietmeier, & C. Steinkeuhler (Eds.), Proceedings of the Games, Learning, and Society 9.0 Conference (pp. 28-32). Madison, WI: ETC Press.

Fishman, G. J., Deterding, S., Vattel, L., Higgin, T., **Schenke, K.**, Sheldon, L., Ewing, C., Holman, & Aguilar, S. (2013, June). Beyond badges & points: Gameful assessment systems for engagement in formal education. In C. C. Williams, A. Ochsner, J. Dietmeier, & C. Steinkeuhler (Eds.), *Proceedings of the Games, Learning, and Society 9.0 Conference* (pp. 364-370). Madison, WI: ETC Press.

Hickey, D., Itow, R., Rehak, A., **Schenke, K.** & Tran, C. (2013, June). Digital badges for recognizing, assessing, motivation, and evaluating learning in games and beyond. In C. C. Williams, A. Ochsner, J. Dietmeier, & C. Steinkeuhler (Eds.), *Proceedings of the Games, Learning, and Society 9.0 Conference* (pp. 508-509). Madison, WI: ETC Press.

## Publications Under Review

Due to the possibility that some in progress manuscripts may be under double-blind review, these manuscripts are not listed on this version of my CV. Please email me if you would like a complete list of my current projects and other in-progress manuscripts.

#### Honors and Awards

- 2015 Outstanding Reviewer Award. American Education Research Association. For outstanding service to AERA Open.
- 2015 Graduate Student Service Award. University of California, Irvine.
- 2014 Division C Graduate Student Seminar Participant. American Education Research Association.
- 2013 Motivation in Education SIG: Paul R. Pintrich Best Paper Award. American Education Research Association.
- 2013 **Best Paper Award**. European Association for Research on Learning and Instruction. For outstanding paper in Junior Researchers Conference.

## Teaching

- 212B Motivation and Affect in Educative Process Graduate School of Education & Information Studies, UCLA Spring 2018.
- M231E Statistical Analysis with Latent Variables
  Graduate School of Education & Information Studies, UCLA
  Spring 2016.
  - 255B Special Topics: Introduction to Design and Conduct of Educational Research
    Graduate School of Education & Information Studies, UCLA
    Winter 2016.

#### Peer-reviewed Presentations

- April 2019 Redman, E. H., Chung, G. K. W. K., **Schenke, K.**, Maierhofer, T., Parks, C., Chang, S., Riveroll, C., Feng, T., Michiuye, J., & Roberts, J. *How does "Measure Up!" measure up? Using an iPad app to teach preschoolers measurement concepts.* Poster to be presented at the Annual at the American Education Research Association, Toronto, Canada.
- April 2019 Schenke, K., Feng, T., Chung, G. K. W. K., & Roberts, J. The effect of feedback on learners' behavior and performance in a digital game. In M. Bernacki (Chair), Embracing and Modeling the Complex Dynamics of Motivation and Engagement: Contextual, Temporal, Dynamic, and Systematic. Symposium to be conducted at the Annual at the American Education Research Association, Toronto, Canada.
- March 2019 Roberts, J., Parks, C., Chung, G. K. W. K., Redman, E. H., **Schenke, K.**, & Felline, C. *Innovations in evidence and analysis: The PBS KIDS learning analytics platform and the research it supports.* In N. Hupert (Chair), What have we learned from Ready To Learn? Symposium to be conducted at the Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.

- March 2019 Roberts, J., Chung, G. K. W. K., Feng, T., Riveroll, C., Redman, E. H., **Schenke**, **K.**, Lund, A., & Rodriguez, R. *Deriving learning-related measures from game telemetry: Detecting children's alternative conceptions of the pan balance.* Poster presentation at the Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.
- September 2018 **Schenke, K.** & Ruzek, E. Using PreK children's self-reports to measure their academic orientations: A psychometric evaluation Paper presented as part of a paper session entitled: Domain-general skills in education: Psychology, education, and neuroscience perspectives. International Mind, Brain, and Education Society, Los Angeles, CA.
  - April 2018 Schenke, K. From structure to process: Do students? own construction of their classroom drive their learning? Paper presented as part of a paper session entitled: Contrasting Viewpoints: Using Information from Multiple Reporters to Understand Classroom Dynamics. Annual meeting of the American Education Research Association, New York, NY.
  - April 2018 Kraft, M., Ruzek, E., **Schenke, K.**, Buckley, K, & Hulleman, C. *The Effect of School Climate on Students? Social-Emotional Competencies* Paper presented as part of a paper session entitled: Improving Social-Emotional Skills at Scale: Measurement and Innovation in the CORE Districts. Annual meeting of the American Education Research Association, New York, NY.
  - April 2018 Chung, G. K.W.K, Parks, **Schenke, K.**, & Roberts, J. *Predicting test scores from game play data: A comparison of neural network and regression procedures* Poster presented at the Annual meeting of the American Education Research Association, New York, NY.
  - April 2017 **Schenke, K.**, Kuhfeld, M. & Cai, L. How do teachers change the distribution of their classroom's achievement? Paper presented as part of a paper session entitled: Issues with the Design and Implementation of Test-Based Accountability Policies. Annual meeting of the American Education Research Association, San Antonio, TX.
  - July 2016 Banerjee, M., Schenke, K., Lam, A. C., & Eccles, J. S. STEM vs. non-STEM careers: Exploring the roles of expectations, experiences, and support in the lives of women. Paper presented as part of a paper session entitled: Expectancies and values for STEM pursuits. Gender and STEM Network Conference Association, Newcastle, U.K.
  - April 2016 Rutherford, T., **Schenke, K.**, & Lam, A. C. *Monitoring accuracy as antecedent to help seeking.* Paper presented as part of a symposium entitled: Motivational, Cognitive, and Dispositional Antecedents of Academic Help Seeking. Annual meeting of the American Education Research Association, Washington, D.C.
  - April 2016 Hickey, D., Willis, J., Quick. J., Chow, C., **Schenke, K.**, Tran, C., & Itow, R. Where badges work better: Findings from the design principles documentation project. Poster presented as part of a structured poster session entitled: Democratizing Learning through Digital Badges: Theoretical and Analytical Frameworks to Advance Design and Research. Annual meeting of the American Education Research Association, Washington, D.C.

- March 2016 **Schenke, K.**, Ruzek, E., Lam, A. C., Karabenick, S., & Eccles, J. *Heterogeneity of student perceptions of the classroom climate*. Paper presented as part of a symposium entitled: Student Heterogeneity in the Classroom: Precursors and Links to Outcomes. Biannual meeting of the Society for Research on Adolescence, Baltimore, MD.
  - April 2015 **Schenke, K.**, Tran, C., Nguyen, T., Reimer, L. & Domina, T. *I thought I was going to get an A! Understanding the role of self-efficacy and calibration on student achievement and help seeking.* Paper presented at the annual meeting of the American Education Research Association, Chicago, IL.
  - April 2015 **Schenke, K.**, Lam, A. C., Ruzek, E., Conley, A. M., Karabenick, S., & Eccles, J. Heterogeneity of student perceptions of the classroom climate: A latent profile approach. Paper presented as part of a symposium entitled: Student Heterogeneity in the Classroom: Precursors and Links to Outcomes. Annual meeting of the American Education Research Association, Chicago, IL.
- March 2015 **Schenke, K.**, Rutherford, T., Lam, A. C., & Lee, D. S. Working memory and self-concept as determinants of achievement in elementary mathematics: Reciprocal relations across three years. Poster presented at the biennial meeting of the Society for Research on Child Development, Philadelphia, PA.
  - April 2014 Chang, A., Ruzek, E., **Schenke, K.**, Conley, A. M., & Karabenick, S. *Using multilevel confirmatory factor analysis to understand students? perceptions of the classroom goal structure*. Paper presented at the annual meeting of the American Education Research Association, Philadelphia, PA.
  - April 2014 Schenke, K., Rutherford, T., & Farkas, G. Linking educational technology to standardized assessments: Game content and features. Paper presented as part of a symposium entitled: Facets of large-scale evaluation illustrated with STMath: Examining outcomes, mediators and moderators. Annual meeting of the American Education Research Association, Philadelphia, PA.
  - April 2014 Hickey, D. T., Itow, R., Rehak, A. M., **Schenke, K.**, & Tran, C. Design principles and relevant resources for recognizing, assessing, motivating, and studying learning with digital badges. Paper presented as part of a symposium entitled: Innovating education practice through digital badges: Recent research, current practices, and future directions. Annual meeting of the American Education Research Association, Philadelphia, PA.
- March 2014 Ruzek, E., Downer, J., & **Schenke**, **K.** Why won?t my teacher help me? Exploring variability in teachers? responsiveness to student help seeking within classrooms. Poster presented at the biennial meeting of Society for Research on Adolescence, Austin, TX.
- August 2013 Schenke, K., Tran, C., Young, N., & Conley, A. M. Down with food: The journey of developing a digital game that addresses science misconceptions. Paper presented as part of a symposium entitled: Designing effective multimedia digital games to promote learning. Annual meeting of the European Association for Research on Learning and Instruction. Munich, Germany.

- August 2013 Schenke, K., Tran, C., Young, N., Bediones, C., Chung, K., Dinh, C., Fernandez, K., Yam, M., & Conley, A. M. Down with food: An iPad game that addresses science misconceptions. ICT demonstration presented at the annual meeting of the European Association for Research on Learning and Instruction. Munich, Germany.
  - April 2014 Hickey, D. T., Itow, R., Rehak, A. M., & **Schenke**, **K.** Digital Badges Design Principles Documentation Project. Poster presented at the annual meeting of the Digital Media and Learning Conference, Chicago, II.
  - April 2013 Schenke, K., Chang, A., Conley, A. M., & Karabenick, S. Perceived classroom context influences on students? help-seeking behavior: What reason and from whom. Paper presented as part of a symposium entitled: The Role of Motivation in Help-Seeking: Peers, Processes, and Classroom Perceptions. Annual meeting of the American Education Research Association, San Francisco, CA.
  - April 2013 Rutherford, T., Lee, D. S., **Schenke, K.**, Chang, A., Tran, C., Young, N. S., Conley, A. M., Graham, J.D., Leyrer, J., & Martinez, M. E. *Brain Boost: Randomized trial of a program to enhance intelligence in elementary and middle school.* Poster presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
  - April 2013 Chang, A., **Schenke, K.**, & Conley, A. M. *Mathematics achievement, help seeking, and classroom goal structures*. Poster presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
- September 2012 Tran, C., **Schenke, K.**, Siddiqi, F., & Conley, A. M. Exploring how motivation in game-based learning influences conceptual change. Paper presented to the European Association for Research on Learning and Instruction SIG Conceptual Change, Trier, Germany.
  - August 2012 Rutherford, T., Schenke, K., Conley, A. M., & Martinez, M. E. *The association between math test scores, math expectancy, and cognitive abilities.* Poster presented to the annual meeting of the American Psychological Association, Orlando, FL.
  - August 2012 **Schenke, K.**, Chang, A., Rutherford, T., Lee, D. S., Tran, C., Young, N. S., Leyrer, J., Graham, J.D., & Martinez, M. E. *Brain Boost: A model for enhancing cognitive ability in an after school environment.* Poster presented at the annual meeting of the American Psychological Association, Orlando, FL..
    - April 2012 Richland, L. E., & **Schenke, K.** Teacher epistemologies of comparing and contrasting. Paper presented as part of a symposium entitled: On the Design, Implementation, and Outcomes of Using Contrasts in Learning. Annual meeting of the American Education Research Association, Vancouver, Canada.
    - May 2012 **Schenke, K.** Student perspectives on the implementation of the knowing and learning in mathematics and science course at UC Irvine. Round table presentation at the annual U-Teach institute-NMSI conference, Austin, TX.

# Invited Talks and Workshops

April 2017 **Schenke, K.** & La Torre Matrundola. *Evaluating Alignment of Computer Adaptive Assessments*. Workshop presented at the annual meeting of the National Council for Measurement in Education.

- December 2013 **Schenke, K.** Alignment of game design features and state mathematics standards: Do results reflect intentions? MIND Institute, Irvine, CA.
  - April 2013 Hickey, D. T., Itow, R., Tran, C., & Schenke, K. Badge Design Principles Documentation Project. Presented at the National Science Foundation special meeting on Badges-Based STEM Assessment: Current Terrain and the Road Ahead. NSF Headquarters, Washington, D.C.
- November 2012 **Schenke, K.**, & Lam, M. *Teach Aerodynamics with Aero!* Presented at the Annual CUE LA Conference, Los Angeles, CA.
- September 2012 **Schenke, K.** Unpacking the effect of ST Math: Which skills does it affect? Presented at the Annual Principal?s Kickoff Meeting, Irvine, CA.

## Funded Research Support

- 2017-2018 University of Virginia, CASTL Seed Grant Co-PI (PI Ruzek, \$5,000 total award)
- 2014-2015 University of California, Irvine, Multidisciplinary Grant Co-PI (PI Conley, \$3,000 total award)

## Research & Consulting Experience

- July 2015–July Researcher, Smarter Balanced Assessment Consortium Project, National 2017 Center for Research on Evaluation, Standards, and Student Testing (CRESST), UCLA, Los Angeles, CA.
  - Analyzed operational testing data, conducted simulation studies, managed the team of psychometricians, wrote reports.
- March-May 2016 Researcher, Utah Project, National Center for Research on Evaluation, Standards, and Student Testing (CRESST), UCLA, Los Angeles, CA.
  - Cowrote proposal, analyzed operational testing data including item exposure of computer adaptive assessment and blueprint fidelity, assisted in writing final report for federal peer-review of states' computer adaptive tests.
  - 2012-2013 Research Consultant, GameDesk Institute, Los Angeles, CA.
    - Assisted in research and development of educational games, wrote grant proposals, conducted school observations.

## Professional Activities

editorial board member

editorial board Journal of Educational Psychology

ad hoc reviewer

American Educational Research Journal, AERA Open, Child Development, Contemporary Educational Psychology, Computers and Education, Developmental Psychology, Educational Studies, Learning and Individual Differences, Intelligence, Journal of Early Adolescence, Journal of Educational Psychology, Learning and Instruction, PLOS ONE, Mathematics Education Research Journal

grant reviewer

National Science Foundation Advancing Informal STEM Learning conference Society for Research on Educational Effectiveness

proposal reviewer American Educational Research Association Annual Meeting, Division C, Division

D, Motivation SIG

American Psychological Association Division 15

affiliations American Educational Research Association

National Council on Measurement in Education

university service Reviewer for the Undergraduate Research Scholars Program (2018)

Student Representative for the Ph.D. in Education Professional Development Work-

shops (2011-2013)

Session Chair for the Undergraduate Research Opportunities Program Symposium

(2013)

Student Representative for the School of Education Ad Hoc Software Committee

(2013)

service Organizer of CRESST CON's Innovation Showcase (2018)

Reviewer for Undergraduate Student Education Research Training Workshop for

AERA (2017, 2018)

Speaker at Undergraduate Student Education Research Training Workshop for

AERA (2018)

Serving on American Psychological Association Division 15 Student Affairs Commit-

tee (2018-2021)

#### Statistical Skills

software Stata; Mplus; R; flexMIRT; Dedoose

methods Quantitative methods including multilevel modeling, structural equation modeling, factor analysis, item response theory, latent class analysis, cognitive diagnostic modeling, propensity score matching, and regression. Qualitative methods including

observations, open coding, interviews, and playtesting.

## Other

Fluent in oral and written German and French