Katerina Schenke

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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.

Publications

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

Schenke, K., & Richland, L. E. (2017). Preservice teachers' use of contrasting cases in mathematics instruction. *Instructional Science*. doi:10.1007/s11251-017-9408-2

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

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

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.

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. Proceedings of the 7th International Conference Educational Data Mining, London.

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Han, M., Vu, M., Bediones, C., Tran, C., & **Schenke, K.,** (2014, June). How kids inform the development of a science game. Proceedings of the Games, Learning, and Society 10.0 Conference. Madison, WI.

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. Proceedings of the International Conference of the Learning Sciences. Boulder, CO.

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. Proceedings of the Games, Learning, and Society 9.0 Conference. Madison, WI.

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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. Proceedings of the Games, Learning, and Society 9.0 Conference. Madison, WI.

Publications Under Review

Hickey, D. & **Schenke, K.** Reconsidering motivation when learning is accomplished, assessed, and recognized in digital networks. Invited chapter for consideration at Renninger, K.A. & Hidi, S.E. (Eds.) *The Cambridge Handbook on Motivation and Learning.*

Banerjee, M., **Schenke, K.**, Lam, A.C., & Eccles, J.S. Teachers matter too! A qualitative perspective in the experiences and expectations of females within STEM and non-STEM careers. In consideration for a special issue. *Under review.*

Schenke, K. The association between instructional practices and student achievement: The role of student perceptions. *Revision resubmitted.*

Jiang, S., **Schenke, K.**, Eccles, J. S., Xu, D., & Warschauer, M. Females' enrollment and completion in science, technology, engineering, and mathematics massive open online courses. *Revision resubmitted.*

Lee, K. T. H., Lewis, R. W., Kataoka, S., **Schenke, K**, & Vandell, D. L. Out-of-School Time and Problem Behaviors during Adolescence. *Under second revision.*

Reports

Hickey, D. T., Itow, R., **Schenke, K.**, Tran, C., Otto, N., & Chow, C. (2013). *Badge Design Principles Documentation Project Interim Report.* Indiana University. Retrieved from http://iudpd.indiana.edu/InterimReport

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 Experience

Spring 2016 **Course Instructor**
Graduate School of Education & Information Studies, UCLA
Statistical Analysis with Latent Variables.

Winter 2016 **Course Instructor**
Graduate School of Education & Information Studies, UCLA
Special Topics: Introduction to Design and Conduct of Educational Research.

Spring 2010 **Teaching Assistant**
School of Education, UCI
Cognition and Learning in Educational Settings.

Winter 2010 **Teaching Assistant**
School of Education, UCI
Knowing and Learning in Math and Science.

Fall 2010 **Teaching Assistant**
School of Education, UCI
Child Development in Education.

Peer-reviewed Presentations

April 2017 **Schenke, K.**, Kuhfeld, M. & Cai, L. How do teachers change the distribution of their classroom' s achievement? Paper to be 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, Il.

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 Richalnd, 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 to be 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 ($5,000 total award)

2014-2015 **University of California, Irvine**, *Multidisciplinary Grant*
Co-PI ($3,000 total award)

Research & Consulting Experience

July 2015–present **Researcher, Smarter Balanced Assessment Consortium Project**, *National 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.

2011-2015 **Graduate Student Researcher**, *University of California, Irvine*, Irvine, CA.

- Documenting Instructional Practices in STEM Lecture Courses. Project to understand the effects of undergraduate instruction on students' decisions to pursue a STEM major. Developed protocol to observe undergraduate STEM instruction, conducted observations, developed and piloted surveys to understand students' motivation, developed training materials for observation protocol, mentored undergraduate students, wrote grant proposals.
- Achievement Research Lab. Continuation of a longitudinal study to understand how students' social and academic experiences at school relate to learning and motivation and subsequently their decisions to pursue careers in STEM. Developed coding scheme for transcribed interviews, conducted factor analysis on survey responses of motivation and perceptions of the classroom climate.
- Spatial Temporal Mathematics. Collaborative project with Orange County Department of Education and MIND Research Institute to evaluate ST Math software in a randomized trial at 52 low-performing schools in Southern California. Implemented data collection including cognitive and motivation assessments and teacher and parent surveys.

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

ad hoc reviewer: American Educational Research Journal, AERA Open, 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

conference proposal reviewer: Society for Research on Educational Effectiveness
American Educational Research Association Annual Meeting, Division C, Division D, Motivation SIG

affiliations: American Educational Research Association
National Council on Measurement in Education

university service: Student Representative for the Ph.D. in Education Professional Development Workshops (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: Reviewer for Undergraduate Student Education Research Training Workshop for AERA (2017)

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, and regression. Qualitative methods including observations, open coding, interviews, and playtesting.

Other

Fluent in oral and written German and French