

LI-TING CHEN, Ph.D.

Assistant Professor of Counseling and Educational Psychology
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EDUCATION

- Ph.D. Indiana University 2013
Major: Educational Psychology and Inquiry Methodology
Dissertation Title: *Effect Size Measures and Their Interval Estimations: The Multi-Independent Group Case*
- M.S. National Taiwan University, Taipei, Taiwan 2003
Major: Psychology
Thesis Title: *Interparental Conflict, Parenting, and Internalizing Behavior Problems in Taiwanese Fourth Graders*
- B.S. National Chengchi University, Taipei, Taiwan 2001
Major: Psychology

ACADEMIC APPOINTMENTS

Assistant Professor, College of Education, University of Nevada, Reno, July 2016 – present

- Design and teach courses in research methods and statistics
- Advise graduate students and provide service and outreach to the University and to the profession

Research Associate, Collaborative Research Initiative, Indiana University School of Education, June 2014 – June 2016

Project title: Indiana Maternal Infant Early Childhood Home Visiting Program Evaluation

- Developed and implemented evaluation plans to assess the effectiveness of evidence-based home visiting programs
- Developed and implemented evaluation plans to assess interagency collaboration and referral coordination to provide appropriate and unduplicated services for families at risk
- Produced research reports for key stakeholders
- Provided statistical consultation for graduate students

Project title: Indiana Project LAUNCH (Linking Actions for Unmet Needs in Children's Health) Evaluation

- Developed and implemented evaluation plans to evaluate the interagency collaboration aiming to help children at risk
- Developed and implemented evaluation plans to evaluate the effectiveness of implementing a social-emotional program at Head Start sites to improve outcomes for providers and children
- Produced research reports for key stakeholders
- Provided statistical consultation for graduate students

Project title: Use Principles of Improvement Science to Develop and Implement a Team Management Plan at Collaborative Research Initiative

- Played the leadership role
- Examined the outcome data to inform strategies for team management

Adjunct Instructor, Department of Counseling and Educational Psychology, Indiana University, 2013 – 2014

- Taught graduate statistics courses including Intermediate Statistics Applied to Education, and Computer Lab for Educational Statistics

Research Assistant, Department of Counseling and Educational Psychology, Indiana University, 2012 – 2014

Project title: The Page Test and Its Confidence Interval in Single-Case Research

- Synthesized research on effect sizes in single-case research
- Conducted Monte Carlo simulations in SAS and R

Research Assistant, Department of Counseling and Educational Psychology, Indiana University, 2010 – 2012

Project title: A Critical Evaluation of Effect Size Measures for Between-Subjects Designs

- Synthesized research on effect sizes in between-subjects designs
- Conducted Monte Carlo simulations in SAS and R

Associate Instructor, Department of Counseling and Educational Psychology, Indiana University, 2006 – 2012

- Taught graduate statistics courses including Statistical Methods Applied to Education, Intermediate Statistics Applied to Education, and Computer Lab for Educational Statistics

Researcher, the Committee of the Basic Competence Test for Junior High School Students, National Taiwan Normal University, Taipei, Taiwan, 2005

Project title: Develop Writing Assessments for High School Entrance Examinations

- Assessed the quality of test items
- Trained high school teachers to use scoring rubrics to guide the evaluation of student essays

Research Associate, Department of Educational Psychology and Counseling, National Taiwan Normal University, Taipei, Taiwan, 2004 – 2005

Project title: The Effects of Multimedia Games on Arithmetic Learning for Children with Different Self-Regulation Abilities

- Monitored the progress of the project and conducted project related experiments
- Used LISREL for structural equation modeling to examine children's strategies in the multimedia games

Research Associate, Graduate Institute of Behavioral Sciences, Chang Gung University, Taipei, Taiwan, 2003 – 2004

Project title: Disaster Mental Rehabilitation: A School-Based Intervention Program

- Developed items for screening high risk children after a great earthquake
- Designed interview questions for parents of high risk children
- Coordinated school-based interventions and conducted home interviews
- Examined intervention outcomes

Research Assistant, Institute of Health Policy and Management, National Taiwan University, Taipei, Taiwan, 2001–2003

Project title: Child and Adolescent Behaviors in Long-Term Evolution: A School-Based Health Lifestyle Study

- Developed items for assessing health behaviors, mental health problems, and aggression
- Conducted item analyses; performed exploratory as well as confirmatory factor analyses to evaluate the test constructs
- Used longitudinal data analysis techniques to examine the effects of parental influence on mental health problems in EQS, HLM, and SAS.

COURSES TAUGHT

University of Nevada, Reno

EDRS 640 Educational Measurements and Statistics (online and face-to-face)

EDRS 700 Introduction to Educational Research (online and face-to-face)

EDRS 745 Advanced Research Design (face-to-face)

EDRS 771 Advanced Educational Measurement (face-to-face)

Indiana University

P 501 Statistical Methods Applied to Education (face-to-face)

Y 502 Intermediate Statistics Applied to Education (face-to-face)

PUBLICATIONS and MANUSCRIPTS

- Chen, L.-T.**, Feng, Y., Wu, P.-J., & Peng, C.-Y. J. (2019). Dealing with missing data by EM in single-case studies. *Behavior Research Methods*. Advance online publication. <https://doi.org/10.3758/s13428-019-01210-8>
- Chen, L.-T.**, & Peng, C.-Y. J. (2019). Accounting for baseline trends in intervention studies: methods, effect sizes, and software. Manuscript submitted to *Cogent Psychology*.
- Peng, C.-Y. J., & **Chen, L.-T.** (forthcoming). Can missing data methods strengthen the validity of single-case studies? Accepted by *Journal of Modern Applied Statistical Methods*.
- Chen, L.-T.** & Liu, L. (2018). Instructor's self-assessment of content design in online courses. *International Journal of Technology in Teaching and Learning*, 14(1), 24-41. Retrieved from <https://sicet.org/main/journals/ijttl/>
- Liu, L., & **Chen, L.-T.** (2018). Conducting synchronous assessment through web videoconference to improve online learning: Case outcomes with nonparametric analysis. *Journal of Educational Technology Development and Exchange*, 11(1), 45-64. Retrieved from <https://aquila.usm.edu/jetde/vol11/iss1/4/>
- Peng, C.-Y. J., & **Chen, L.-T.** (2018). Handling missing data in single-case studies. *Journal of Modern Applied Statistical Methods*, 17(1), eP2488. <https://doi.org/10.22237/jmasm/1525133280>
- Howland, A. A., **Chen, L.-T.**, Chen, M.-E., & Min, M. (2017). Exploring socio-demographics, mobility, and living arrangement as risk factors for academic performance among children experiencing homeless. *Preventing School Failure: Alternative Education for Children and Youth*, 61(4), 268-279. <https://doi.org/10.1080/1045988X.2016.1272541>
- Peng, C.-Y. J., & **Chen, L.-T.** (2015). Algorithms for assessing intervention effects in single-case studies. *Journal of Modern Applied Statistical Methods*, 14 (1), 276-307. <https://doi.org/10.22237/jmasm/1430454060> (SJR H-index: 19)
- Chen, L.-T.**, Peng, C.-Y. J., & Chen, M.-E. (2015). Computing tools for implementing standards for single-case designs. *Behavior Modification*, 39(6), 835-869. <https://doi.org/10.1177/0145445515603706>
- Chen, L.-T.**, & Peng, C.-Y. J. (2015). The sensitivity of three methods to nonnormality and unequal variances in interval estimation of effect sizes. *Behavior Research Methods*, 47(1), 107-126. <https://doi.org/10.3758/s13428-014-0461-3>
- Peng, C.-Y. J., & **Chen, L.-T.** (2014). Beyond Cohen's *d*: Alternative effect size measures for between-subject designs. *The Journal of Experimental Education*, 82(1), 22-50. <https://doi.org/10.1080/00220973.2012.745471>
- Chen, L.-T.**, & Peng, C.-Y. J. (2013). Constructing confidence intervals for effect sizes in ANOVA designs. *Journal of Modern Applied Statistical Methods*, 12(2), 82-104. <https://doi.org/10.22237/jmasm/1383278640>

Peng, C.-Y. J., **Chen, L.-T.**, Chiang, H.-M., & Chiang, Y.-C. (2013). The impact of APA and AERA guidelines on effect size reporting. *Educational Psychology Review*, 25,157-209. <https://doi.org/10.1007/s10648-013-9218-2>

Warren, D. C., & **Chen, L.-T.** (2013). The Relationship between public service motivation and performance. In E. Ringquist (Ed.), *Meta-analysis for public management and policy* (pp. 442-474). New York, NY: Wiley/Josey-Bass.

Lee, S.-H. T., Yen, L.-L., & **Chen, L.-T.** (2004). Children's problem behaviors, inter-parental conflict and maternal psychological distress. *Journal of Medical Sciences*, 24, 185-190.

PEER-REVIEWED PRESENTATIONS

Liu, L., **Chen, L.-T.**, Li, W., Hanselman, K., & Zou, C. (2019, March). *Online assessment of instructional videos: Using web conference and a content analysis tool*. Paper presented at the annual meeting of Society for Information Technology and Teacher Education, Las Vegas, NV.

Chen, L.-T., & Liu, L. (2019, March). *Suggested methods of effect size estimation for research in information technology and teacher education*. Paper presented at the annual meeting of Society for Information Technology and Teacher Education, Las Vegas, NV.

Peng, C.-Y. J., & **Chen, L.-T.** (2018, April). *Tau-U revisited: Can Tau-U combine nonoverlap with trend?* Paper presented at the annual meeting of American Educational Research Association, New York, NY.

Chen, L.-T., Feng, Y., Wu, P.-J., & Peng, C.-Y. J. (2018, April). *Dealing with missing data by EM in single-case studies*. Paper presented at the annual meeting of American Educational Research Association, New York, NY.

Liu, L., **Chen, L.-T.**, Li, W., Zou, C., & Pugh, K. (2018, March). *Conducting web conferences to verify student identify and assess learning outcomes in online courses*. Paper presented at the annual meeting of Society for Information Technology and Teacher Education, Washington, DC.

Chen, L.-T., Andrade, A., & Hanauer, M. J. (2017, April). *Applying Bayesian statistics for estimating intervention effects in single-case designs*. Paper presented at the annual meeting of American Educational Research Association, San Antonio, TX.

Chen, L.-T., Howland, A. A., & Wu, P.-J. (2016, October). *Using propensity scores for estimating the effectiveness of mental health consultation enhancements in an evidenced-based home visiting program when the inclusion of an important covariate dominates the results of propensity*. Paper presented at the annual meeting of American Evaluation Association, Atlanta, GA.

Howland, A. A., Chen, M.-E., Cornell, H. R., & **Chen, L.-T.** (2016, April). *Goodwill Guides wrap-around enhancement for families participating in a home visiting program*. Paper presented at the annual meeting of American Educational Research Association, Washington, DC.

Chen, L.-T., Howland, A. A., Cornell, H. R., & Anderson, J. A. (2015, April). *An exploratory study of program dropout in an evidence-based home visiting program*. Paper presented at the annual meeting of American Educational Research Association, Chicago.

- Chen, M.-E., Howland, A. A., Anderson, J. A., **Chen, L.-T.**, & Cornell, H. R. (2015, April). *Propensity score matching and its application*. Paper presented at the annual meeting of American Educational Research Association, Chicago.
- Chen, L.-T.**, & Peng, C.-Y. J. (2012, April). *Confidence interval estimations for standardized linear contrasts of means: The one-way fixed-effects between-subjects univariate cases*. Paper presented at the annual meeting of American Educational Research Association, Vancouver, British Columbia, Canada.
- Chen, L.-T.**, & Peng, C.-Y. J. (2012, April). *Multiple imputation for confidence interval estimations for standardized linear contrasts of means: The one-way fixed-effects between-subjects univariate cases*. Poster presented at the annual meeting of American Educational Research Association, Vancouver, British Columbia, Canada.
- Peng, C.-Y. J., & **Chen, L.-T.** (2011, April). *A taxonomy/typology of effect sizes indices for two-population differences*. Paper presented at the annual meeting of American Educational Research Association, New Orleans.
- Carpenter, L., Alexander, J. M., & **Chen, L.-T.** (2011, March). *Mothers' scaffolding styles when discussing ethical dilemmas with their children*. Poster presented at the biennial meeting of Society for Research in Child Development, Montréal, Quebec, Canada.
- Chen, L.-T.**, Alexander, J. M., & Johnson, K. E. (2007, March). *The effects of domain knowledge, intelligence, and metaconceptual knowledge on children's strategy use*. Poster presented at the biennial meeting of Society for Research in Child Development, Boston.
- Chao, C.-C., Wu, Y.-Y., Tu, C.-C., **Chen, L.-T.**, Chang, H.-Y., & Onn, Y.-T. (2004). *Intervention study for child survivors of 1999 Taiwan earthquake*. Poster presented at the 112th annual convention of American Psychological Association, Honolulu.
- Lee, S.-H. T., **Chen, L.-T.**, & Yen, L.-L. (2003). *The relation between parenting behavior and fourth graders' internalizing behavior problems*. Poster presented at the 42nd annual convention of Taiwanese Psychological Association, Tainan, Taiwan.
- Chao, C.-C., Wu, Y.-Y., Lee, L.-W., Tu, C.-C., Chang, H.-Y., & **Chen, L.-T.** (2003). *Children and disaster: A preliminary report of a school-based intervention program for child survivors of 1999 Taiwan earthquake*. Poster presented at the 3rd Congress of Asia Society for Child and Adolescent Psychiatry and Allied Professions, Taipei, Taiwan.
- Lee, S.-H. T., & **Chen, L.-T.** (2002). *The design and reliability of a children social anxiety scale*. Poster presented at the 110th annual convention of American Psychological Association, Chicago.

GRANTS AND SPONSORED RESEARCH

Awarded Grants

- Hsu, Y.-W., & **Chen, L.-T.** (2019). "Facilitators and barriers of bikeshare usage for health promotion at the micro and macro levels," New Scholarly Endeavor Grants Sponsored by Research & Innovation, University of Nevada, Reno, \$2,500.
- Chen, L.-T.** & Liu, L. (2019). "Using IRT to Deal with Data Collected from Likert-Scale Questionnaires," Technology Funds Sponsored by College of Education, University of Nevada, Reno, \$745.

Dockweiler, K. A., Gutierrez, M., Diamond, L. L., & **Chen, L.-T.** (2018). "Project Healthy Minds: A Multi-Tiered System of Support for Social Emotional and Behavioral Functioning," Sponsored by the Rogers Foundation Gift of Assurance, \$ 25,000.

Chen, L.-T. (2018). "Missing Data in Single-Case Research: Current Reporting Practices and Solutions," Scholarly Activities Funds Sponsored by College of Education, University of Nevada, Reno, University of Nevada, Reno, \$2000.

Not Awarded Grants

Liu, L., **Chen, L.-T.**, & Zhu, X. (2017). "IGE: Biomedical Engineering and STEM Education Doctoral Research Collaboration," Sponsored by NSF Research Traineeship (NRT), Federal, \$377,325.

ACADEMIC HONORS

The School of Education Dissertation of the Year Award at Indiana University	2014
Indiana University Office of International Services Scholarship	2012
The Trentham Travel Award at Indiana University	2011
Richard C. Pugh Research Methodology Fellowship at Indiana University	2010
The Trentham Travel Award at Indiana University	2007

PROFESSIONAL ORGANIZATION MEMBERSHIPS

American Evaluation Association	2015 – present
American Psychological Association, Division 5 – Quantitative and Qualitative Methods	2015 – present
American Educational Research Association, Division D – Measurement and Research Methodology	2011 – present
American Educational Research Association, Division H – Research, Evaluation, and Assessment in Schools	2014 – present
American Educational Research Association, SIG-Educational Statisticians	2011 – present

PROFESSIONAL SERVICES

Editorial board of <i>Computers in the Schools</i>	2017 – present
Reviewer of <i>Behavior Research Methods</i>	2019
Reviewer of <i>The Journal of Experimental Education</i>	2013, 2018, 2019
Reviewer of the Proposals for Global Conference on Education and Research (GLOCER)	2017
Reviewer of the <i>BMC Public Health</i>	2016
Reviewer of the Proposals for the American Evaluation Association Quantitative Methods TIG	2016
Guest Speaker of H 150: Children's Health up to Age 5 taught by Angie Wong	2016

Reviewer of <i>Journal of Child and Family Studies</i>	2016, 2019
Guest Speaker of K 681: Evidence-Based Practice in Special Education taught by Jeffrey Anderson	2015
Book Proposal Reviewer of University of California Press	2015
Reviewer of <i>PSICOLOGICA: International Journal of Methodology and Experimental Psychology</i>	2015
Reviewer of AERA Division D Graduate Student In-progress Research Gala	2015
Reviewer of <i>British Journal of Mathematical and Statistical Psychology</i>	2014
Reviewer of <i>International Journal of Behavioral Development</i>	2013
Guest Speaker of Y650: Data Analysis and File Management taught by Chao-Ying Peng	2011

PROFESSIONAL DEVELOPMENT

Single-Case Intervention Research Design and Analysis Summer Training Institute. Madison, WI.	June 2019
SAS Visual Data Mining and Machine Learning on SAS Viya: Interactive Machine Learning. San Diego, CA.	January 2019
Supervised Machine Learning Procedures Using SAS Viya in SAS Studio. San Diego, CA.	January 2019
Applied Analytics Using SAS Enterprise Miner Workshop. San Diego, CA.	January 2018
Survival Data Mining Using SAS Enterprise Miner Software Workshop. San Diego, CA.	January 2018
ICPSR Summer Program Workshop: Digging into the National Survey of Early Care and Education (NSECE): Exploiting the Potential of the Household and Provider Data from the NSECE. Ann Arbor, MI.	June 2015
Conscious Discipline Summer Institute (CD1). Orlando, FL.	June 2015
Improvement Science Workshop at Carnegie Foundation for Advancement of Teaching. Stanford, CA.	November 2014
Writing Winning Grants Workshop. Indianapolis, IN.	September 2014
Scientific Writing from Reader's Perspective. Indianapolis, IN.	July 2014

PROGRAMMING AND SOFTWARE EXPERIENCE

SPSS, SAS, R, LISREL, EQS, HLM, MPlus, BILOG-MG, MULTILOG