Curriculum Vitae

01/12/2025

Yi-Hsin Chen, Ph.D.

Professor

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# EDUCATION

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| 2006 | Ph. D., Arizona State University, Tempe, Arizona. Major: Measurement, Statistics, & Methodological Studies in Educational PsychologyDissertation: [*Cognitively diagnostic examination of Taiwanese mathematics achievement on TIMSS-1999*](http://search.proquest.com/openview/0e09f85bc0f865282b2337f11c00fef7/1?pq-origsite=gscholar&cbl=18750&diss=y)Co-major Professors: Dr. Marilyn Thompson (Professor at ASU) and Dr. Joanna Gorin (Vice President of Global Language Learning, Teaching, and Assessment at ETS). Members: Dr. Samuel Green and Dr. Kikumi Tatsuoka  |
| 1994 | M.A., University of Taipei, Taipei, Taiwan (Former Taipei Municipal Teacher College and Taipei Municipal University of Education)Major: Elementary Education; Minor: Classroom Assessment Thesis: *An application of item response theory and knowledge structure analysis to investigate six graders’ achievement on social study*Major Professor: Dr. Fu-Son Cheng |
| 1992 | B.A., University of Taipei, Taipei, Taiwan (Former Taipei Municipal Teacher College and Taipei Municipal University of Education)Major: Elementary Education, with Honors; Minor: Counseling EducationEssay: *An exploration of pre-service teachers’ sub-culture and its meaning in teacher education* Major Professor: Dr. Ching-Shan Wu |

# PROFESSIONAL EXPERIENCE

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| 08/21 – Present | Professor, Educational Measurement and Research, Department of Educational and Psychological Studies, College of Education, University of South Florida, Tampa, Florida |
| 08/12 – 07/21 | Associate Professor, Educational Measurement and Research, Department of Educational and Psychological Studies, College of Education, University of South Florida, Tampa, Florida |
| 6/15/18 – 7/15/18 | Visiting Scholar in the Research Center for Testing and Assessment at the National Academy for Educational Research (NAER), New Taipei City, Taiwan |
| 08/06 – 07/12 | Assistant Professor, in the Department of Educational Measurement and Research, College of Education, University of South Florida, Tampa, Florida |
| 10/05 – 05/06  | Research Assistant, supervised by Drs. Mark Roosa & Jenn-Yun Tein, in the Prevention Research Center (PRC) at Arizona State University, Tempe, Arizona |
| 08/02 – 05/03 | Teaching Assistant, supervised by Dr. Marilyn Thompson, in the course of “Multiple Regression and Correlation”, a graduate level course, at Arizona State University, Tempe, Arizona |
| 01/01 – 10/05  | Research Assistant, supervised by Dr. Marilyn Thompson & Dr. Joanna Gorin, in the Division in Educational Psychology in the College of Education at Arizona State University, Tempe, Arizona |
| 08/96 – 07/00 | Elementary School Teacher, Taipei, Taiwan, R.O.C |
| 07/94 – 05/96 | Counseling Official, Mandatory Military Service, Taiwan |
| 08/92 – 06/94 | Research Assistant at Taipei Municipal University of Education, Taipei, Taiwan |

# HONORS AND AWARDS

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| Year | Honor and Award | Provider |
| 2025 | Visiting Scholar  | Invited by the Department of Learning and Materials Design (LMD) at the University of Taipei, Taipei, Taiwan |
| 2024 | USF High-Quality Review Gold Badge: Online Course Design | Issued by USF Office of Microcredentials |
| 2018 | Visiting Scholar in the Research Center for Testing and Assessment | Invited by the National Academy for Educational Research (NAER), New Taipei City, Taiwan |
| 2015 | Winner of the SESUG Academic Faculty Grants | Provided by the SouthEast SAS Users Group (SESUG) |
| 2014 | Certified Online Educator | Awarded by Innovative Education (InEd) at the University of South Florida, Tampa, FL, USA |
| 2012 | Recognition of the Contribution of Talent and Insights at the College of Education Technology Summit | Recognized by the College of Education at the University of South Florida, Tampa, FL, USA. |
| 2002 | Psychology in Education Promising Scholars Fellowship | Provided by the College of Education at Arizona State University, Tempe, AZ, USA |
| 2002 | Travel Grant | Provided by Graduate School at Arizona State University, Tempe, AZ, USA |
| 2001-2006 | Graduate Assistantship | Provided by the Division of Psychology in Education in the College of Education and the Prevention Research Center (PRC) at the Arizona State University, Tempe, AZ, USA |
| 1992-1994 | Graduate Scholarship | Provided by Ministry of Education, Taiwan, ROC |

**SCHOLARLY WORK**

My research focuses are in the following areas that are highly related to measurement and assessment: (a) Applications and examinations of cognitive diagnostic models (CDMs), which incorporate cognitive information into psychometric models, as well as explorations of validation approaches (e.g., DIF, internal and external validity) for Q-matrices and diagnostic profiles; (b) Applications of measurement modeling (e.g., CTT, Rasch, LCA, and SEM) to achievement data and psychological data; (c) Examinations of accuracy and precision of robust statistical approaches for traditional *t*-tests and ANOVA tests; and (d) Development of statistical SAS macros. These research areas involve simulation studies and applied studies with real data.

**PUBLICATIONS (\* indicates a graduate student; # indicates a postdoctoral/junior researcher or a doctoral student at another university)**

## **Articles in Peer-reviewed Journals**

1. \*Young, R., Courtney, E., \*Kah, A., \*Wilkerson, M., & **Chen, Y.-H.** (2025, OnlineFirst). Content and item response theory analysis of chatGPT-4-generated multiple-choice items. *Teaching of Psychology*. <https://doi.org/10.1177/00986283241311220>

## Chen, Y.-J. I., Wu, Y.-J., **Chen, Y.-H.**, & Irey, R. (2024, OnlineFirst). Development and initial validation of the computer-based orthographic processing assessment short form: An application of cognitive diagnostic modeling. Journal of Psychoeducational Assessment. <https://doi.org/10.1177/07342829241304165>

1. Chen, Y.-H. (2024). Cross-cultural validation of the mathematics construct and diagnostic attribute profiles: A differential item functioning approach. *Applied Measurement in Education, 37*(4), 356-376*.* <https://doi.org/10.1080/08957347.2024.2438084>
2. Dudash, J., Hernandez, V. M., & **Chen, Y.-H.** (2024). Nurses’ attitudes toward death and associations with background characteristics. *British Journal of Healthcare and Medical Research, 11*(6), 38-48. <https://doi.org/10.14738/bjhmr.116.17783>

## Hsu, C.-L., **Chen, Y.-H.**, & Wu, Y.-J. (2023) Using a Bayesian estimation to examine attribute hierarchies of the 2007 TIMSS mathematics test: A demonstration using R packages. *Practical Assessment, Research, and Evaluation*: Vol. 28, Article 11. [IS=2.03|SJR=0.465|Q2]Available at: <https://scholarworks.umass.edu/pare/vol28/iss1/11>

## **Chen, Y.-H.** (2022). Validation of mathematics construct and diagnostic profiles using a differential item functioning approach. Journal of Psychoeducational Assessment, 40(6), 790-806. [SSCI | IF=1.452|5-Year IF=1.934|Q2] <https://doi.org/10.1177/07342829221100607>

1. #Chen, Y.-J., **Chen, Y.-H.,** Anthony, J., & **\***Erazo, N. (2022). Evaluation of the computer-based orthographic processing assessment: An application of cognitive diagnostic modeling. *Journal of Psychoeducational Assessment, 40*(2), 271-292*.* <https://doi.org/10.1177/07342829211056396> [SSCI|IF=1.45|5-Year IF=1.93|Q2]

## \*Yi, Z., **Chen, Y.-H.** \*Yin, Y., \*Cheng, K., \*Wang, Y., \*Nguyen, D. T., \*Pham, T., & Kim, E. S. (2022). Brief research report: A comparison of robust tests for homogeneity of variance in factorial ANOVA. The Journal of Experimental Education, 90(2), 505-520. <https://doi.org/10.1080/00220973.2020.1789833> [SSCI|2019 IF=2.11|2019SJR:1.28|Q1]

1. Warrican, S. J., #Alleyne, M., Smith, P., Esperat, T., Zaidi, R., **Chen, Y.-H.,** & \*Yin, Y. (2022). Cultural alloys and heterogenous mixes: Contextualized and comparative language differences in the literacy assessment of U.S. and Canadian youth. *Research in Comparative and International Education, 17*(1), 3-28*.* https://doi.org/10.1177/17454999211057449 [IF=1.50|SJR=0.412|Q2]
2. #Wu, Y.-J., **Chen, Y.-H.**, Kiefer, S., & Carstensen, C. (2021). Learning strategies as moderators between motivation and mathematics performance in East Asian students: Latent Class Analysis. *SAGE Open, 11*(4). https://doi.org/10.1177/21582440211061382*.* [SSCI | 2021 IF=2.03|5-year IF= 2.10|Q2]

## \*Cao, C., Kim, E. S., **Chen, Y.-H.**, & Ferron, J. (2021). Examining the impact of and sensitivity of fit indices to omitting covariates interaction effects in multilevel MIMIC models. Educational and Psychological Measurement, 81(5), 817-846. https://doi.org/10.1177/0013164421992407 [SSCI, SCIE|2021IF=3.09|2018SJR=1.75|Q1]

1. #Wu, Y.-J., Kiefer, S., & **Chen, Y.-H.** (2020). The relationships of learning strategies with self-efficacy and mathematics performance: A cross-cultural comparison. *International Journal of School and Educational Psychology,* 8(S1), 91-103. [2018IF=1.64|2019SJR=0.34|Q2] https://doi.org/10.1080/21683603.2019.1566104

## \*Pham, T., Kromrey, J. D., **Chen, Y.-H.,** \*Nguyen, D. T., Kim, E. S., & \*Wang, Y., (2020). ANOVA\_Robust: A SAS® macro for various robust approaches to testing mean differences in one-factor ANOVA models. Journal of Statistical Software, 95, Code Snippet 2. [SCIE | 2018IF = 10.30 | 2018SJR = 17.569 | Q1] <https://www.jstatsoft.org/article/view/v095c02>

1. \*Nguyen, D. T., Kim, E. S., \*Wang, Y., \*Pham, T., **Chen, Y.-H.,** & Kromrey, J. D. (2019). An empirical comparison of tests for one-factor ANOVA under heterogeneity and non-normality. *Journal of Modern Applied Statistical Methods, 18*(2), eP2906. [Acceptance rate: 21.9% | 2018 IF = 0.40 | 2018SJR = 0.224] <https://digitalcommons.wayne.edu/cgi/viewcontent.cgi?article=2906&context=jmasm>
2. #Hu, J., Serovich, J. M., Brown, M. J., Kimberly, J. A., & **Chen, Y.-H.** (2019). Validity study of the R-PLA, a resilience scale for people living with HIV. *Journal of HIV and AIDS, 5*(3): <https://pubmed.ncbi.nlm.nih.gov/32405538>

## Chen, Y.-H., Senk, S. L., Thompson, D. R., & #Voogt, K. (2019). Examining psychometric properties and level classification of the van Hiele geometry test using CTT and CDM framework. Journal of Educational Measurement,54(4), 733-756. [SSCI | 2018IF = 1.10 | 2018SJR = 0.922 | Q1] <https://doi.org/10.1111/jedm.12235>

## \*Cao, C, Kim, E. S., **Chen, Y.-H.**, Ferron, J, M., & Stark, S. (2019). Exploring the test of covariate moderation effects in multilevel MIMIC models. Educational and Psychological Measurement, 79(3), 512-544. [SSCI, SCIE | 2018IF = 2.21 | 2018SJR = 1.747 | Q1] <https://doi.org/10.1177/0013164418793490>

## \*Wang, Y., \*Nguyen, D. T., \*Pham, T., Kim, E. S., **Chen, Y.-H.**, Kromrey, J. D., \*Yi, Z., & \*Yue, Y. (2018). Evaluating the efficacy of conditional analysis of variance under non-normality and heterogeneity. Journal of Modern Applied Statistical Methods,17(2), eP2701. [Acceptance rate: 21.9% | 2018IF = 0.40 | 2018SJR = 0.224] <https://digitalcommons.wayne.edu/cgi/viewcontent.cgi?article=2701&context=jmasm>

## \*Nguyen, D. T., Kim. E. S., & **Chen, Y.-H.** (2018). Can one test fit all? Responses to the article “Striving for simple but effective advice for comparing the central tendency of two populations” (Ruxton & Neuhauser, 2018). Journal of Modern Applied Statistical Methods, 17(2), eP2822. [Acceptance rate: 21.9% | 2018IF = 0.40 | 2018SJR = 0.224] <https://digitalcommons.wayne.edu/cgi/viewcontent.cgi?article=2822&context=jmasm>

## Sengupta, S., Ergas, S., Cunningham, J., Goel, R., Feldman, A., & **Chen, Y.-H.** (2017). Concept inventory (CI) for fundamentals of environmental engineering courses: Findings from CI development and testing. Environmental Engineering Science, 34(12), 895-907. [SCIE | 2018IF = 1.79 | 2018SJR = 0.561 |Q1] <https://doi.org/10.1089/ees.2016.0595>

## \*Li, I. Y., **Chen, Y.-H.**, \*Wang, Y., \*Rodriguez de Gil, P., \*Pham, T. V., \*Nguyen, D. T., Kim, E. S., & Kromrey, J. D. (2017). ANOVA\_HOV: A SAS macro for testing homogeneity of variance in one-factor ANOVA models. Journal of Modern Applied Statistical Methods, 16(2), 506-539. [AR: 21.9% | 2018IF: 0.40 | 2018SJR: 0.224 | Q2] <https://digitalcommons.wayne.edu/jmasm/vol16/iss2/28/>

1. #Hu, J., Serovich, J. M., **Chen, Y.-H.,** Brown, M. J., & Kimberly, J. A. (2017). Psychometric evaluation of the HIV disclosure attitude scale: A Rasch Model. *AIDS and Behavior, 21*(1), 174-183. [SSCI | 2018IF = 2.95 | 2018SJR = 1.825] <https://doi.org/10.1007/s10461-016-1478-7>
2. \*Wang, Y., \*Rodriguez de Gil, P., **Chen, Y.-H.**, Kromrey, J. D., Kim, E. S., \*Nguyen, D. T., \*Phah, T., & \*Romano, J. (2017). Comparing the performance of approaches for testing the homogeneity of variance assumption in one-factor ANOVA models. *Educational and Psychological Measurement, 77*(2), 305-329. [SSCI | 2017IF =1.663] <https://doi.org/10.1177/0013164416645162>

## \*Nguyen, D. T., Kim, E. S., \*Rodriguez de Gil, P., \*Kellerman, A., **Chen, Y.-H.,** Kromrey, J. D., & \*Bellara, A. (2016). Parametric tests for two population means under normal and non-normal distributions. Journal of Modern Applied Statistical Methods, 15(1), Article 9. [Acceptance rate = 21.9% | 2018IF = 0.40 | 2018SJR = 0.224] doi:10.22237/jmasm/1462075680

## #Hu, J., Miller, M. D., Huggins-Manley, A. C., & **Chen, Y.-H**. (2016). Evaluation of model fit in cognitive diagnosis models. International Journal of Testing, 16(2), 119-141. [2018IF = 0.97 | 2018SJR = 0.814] <https://doi.org/10.1080/15305058.2015.1133627>

1. **Chen, Y. H.,** Leu, Y.-C., \*Bryce P., & \*Chavez, T. (2015). Assessment of Taiwanese Students' Conceptual Development of Fractions. *Journal of Education and Human Development, 4*(2), 10-21*.* <http://dx.doi.org/10.15640/jehd.v4n2a2>
2. Yang, Y., **Chen, Y.-H.**, & Lo, W.-J. (2012). Cross-cultural evaluation of item wording effects on an attitude towards mathematics Scale. *Journal of Psychoeducational Assessment, 30(5),* 509-519*.* [SSCI | 2018IF = 1.55 | 2018SJR = 0.702] <https://doi.org/10.1177/0734282911435461>
3. Lo, W.-J., Thompson, M. S., & **Chen, Y.-H.** (2012). A construct validity examination on a Chinese version of the parental bonding instrument using confirmatory factor analysis. *The International Journal of Educational and Psychological Assessment, 11,* 20-43*.* <https://sites.google.com/site/tijepa2012/vol-11-2>
4. **Chen, Y.-H.** (2012). Cognitive diagnosis of mathematics performance between rural and urban students in Taiwan. *Assessment in Education, 19*(2),193-209*.* [SSCI | 2018IF = 2.90 | 2018SJR = 1.555] <https://doi.org/10.1080/0969594X.2011.560562>
5. **Chen, Y.-H.**, **Thompson, M. S., Kromrey, J. D., & Chang, G.-H.** (2011). Relations of student perceptions of teacher oral feedback with teacher expectancies and student self-concept. *The Journal of Experimental Education, 79*, 452-477*.* (SSCI | 2018IF = 2.45 | 2018SJR = 1.184) <https://doi.org/10.1080/00220973.2010.547888>
6. **Chen, Y.-H.**, \*Macdonald, G., & Leu, Y.-C. (2011). Validating cognitive sources of mathematics item difficulty: Application of the LLTM to fraction conceptual items. *The International Journal of Educational and Psychological Assessment, 7(2),* 74-93*.* <https://sites.google.com/site/tijepa2012/articles/vol-7-2>
7. **Chen, Y.-H.**, Ferron, J. M., Thompson, M. S., Gorin, J. S., & Tatsuoka, K. K. (2010). Group comparisons of mathematics performance from a cognitive diagnosis perspective. *Educational Research and Evaluation, 16,* 325-343. [2018IF = 1.08 | 5-Year IF = 1.01 | 2018SJR = 0.574] <https://doi.org/10.1080/13803611.2010.527760>
8. **Chen, Y.-H.,** **Rendina-Gobioff, G., & Dedrick, R. F.** (2010). Factorial invariance of a Chinese self-esteem scale for third and sixth grade students: Evaluating method effects associated with the use of positively and negatively worded items. *The International Journal of Psychological and Educational Assessment, 6(1)*, 21-35. <https://sites.google.com/site/tijepa2012/articles/vol-6-1>
9. **Chen, Y.-H.**, Gorin, J. S., Thompson, M. S. & Tatsuoka, K. (2008). Cross-cultural validity of the TIMSS-1999 mathematics test: Verification of a cognitive model. *International Journal of Testing, 8,* 251-271. [2018IF = 0.97 | 2018SJR = 0.814] <https://doi.org/10.1080/15305050802262217>
10. Thomspon, M. S., Gorin, J. S., Obeidat, K., & **Chen, Y.-H.** (2006). Understanding differences in postsecondary educational attainment: A comparison of predictive measures for black and white students. *The Journal of Negro Education, 75,* 546-562. [SSCI | 2018IF = 0.83 | 2018SJR = 0.579] <https://www.jstor.org/stable/40026821>
11. Thompson, M. S., Green, S. B., **Chen, Y.-H.**, Stockford, S., & Lo, W.-J. (2005). Power of the t test for normal and mixed normal distributions. *Journal of Modern Applied Statistical Methods, 4*, 591-597. DOI: 10.22237/jmasm/1130804640

***Book Chapter***

1. Wolgemuth, J. R., **Chen, Y.-H.,** Rodríguez-Campos, L., Ferron, J., Kim, E. S., Dedrick, R. F.**,** & Lamb, D. S. (**2023**). What are we teaching for? Humility and responsibility in social science
research. In M. Nind (ed.), *Handbook of teaching and learning social research methods* (pp. 198-212). Edward Elgar Publishing, UK. <https://doi.org/10.4337/9781800884274.00022>
2. Senk, S. L., Thompson, D. R., **Chen, Y.-H.**, & #Voogt, K. (2018). Exploring models of secondary geometry achievement. In P. Herbst, U. Cheah, K. Jones, P. Richard (eds.), *International perspectives on the teaching and learning of Geometry in secondary schools* (pp. 265-282). Cham, Switzerland: Springer. <https://doi.org/10.1007/978-3-319-77476-3>
3. **Chen, Y.-H.**, \*Wang, Y., & Kromrey, J. D. (2018). Levene's homogeneity of variance test. In B. Frey (Ed.,). *The Sage encyclopedia of educational research, measurement, and evaluation* (pp. 970-972). Thousand Oaks, CA: SAGE Publications, Inc. <http://dx.doi.org/10.4135/9781506326139.n392>
4. **Chen, Y.-H.** (2018). *Local independence*. In B. Frey (Ed.,). The Sage encyclopedia of educational research, measurement, and evaluation (p. 988). Thousand Oaks, CA: SAGE Publications, Inc. <http://dx.doi.org/10.4135/9781506326139.n400>
5. **Chen, Y.-H.,** \*Li, I. Y., & \*Chason, W. (2018). Construct underrepresentation. In B. Frey (Ed.,). *The Sage Encyclopedia of educational research, measurement, and evaluation* (pp. 377-380). Thousand Oaks, CA: SAGE Publications, Inc. <http://dx.doi.org/10.4135/9781506326139.n144>
6. **Chen, Y.-H.,** Gorin, J. S., Thompson, M. S. & Tatsuoka, K. K. (2008). An alternative examination of Chinese Taipei mathematics achievement: Application of the rule-space method to TIMSS 1999 data. In M. von Davier, & D. Hastedt (Eds.), *IERI monograph series: Issues and methodologies in large scale assessments.* Volume 1 (pp. 23-49). United States/Germany: IEA-ETS Research Institute.

***Papers in Conference Proceedings***

1. Rosengrant, D., Matthews, G., Feldman, A., **Chen, Y.-H.**, & Alsultan, J. (2021, August 4-5). Preliminaryresults on a video-based force concept inventory. In M. B. Bennett, B. W. Frank, & R. Vieyra (Eds.), *2021 Physics Education Research Conference Proceedings*. <http://dx.doi.org/10.1119/perc.2021.pr.rosengrant>
2. \*Pham, T. V., Kim, E. S., **Chen, Y.-H.**, \*Wang, Y., \*Nguyen, D., Kromrey, J. D. (2016, July 30-August 4). *Comparing performance of tests for one-factor ANOVA models under heterogeneity and non-normality: A Monte Carlo simulation study*. In the Joint Statistics Meeting (JSM) 2016 Proceedings, Social Statistics Section*.* Alexandria, VA: American Statistical Association.
3. \*Wang, Y., Chen, Y.-H., \*Li, I. Y., & \*Cao, C. (2015, September 27-29). *Can fit indices yielded from the SAS GLIMMIX procedure select the accurate Q-matrix*? In the SouthEast SAS Users Group (SESUG) 2015 Proceedings. Cary, NC: SAS Institute Inc*.*
4. **Chen, Y.-H.** & \*Li, I. Y. (2015, September 27-29). *IA\_CTT: A SAS® macro for conducting item analysis based on the classical test theory*. In the SouthEast SAS Users Group (SESUG) 2015 proceedings. Cary, NC: SAS Institute Inc*.*
5. \*Pham, T. V., Kim, E. S., \*Nguyen, D. T., \*Wang, Y., Kromrey, J. D., & Chen, Y.-H. (2015, September 27-29). *ANOVA\_Robust: A SAS® macro for various robust approaches to testing mean differences in one-factor ANOVA models*. In the SouthEast SAS Users Group (SESUG) 2015 proceedings. Cary, NC: SAS Institute Inc*.* <https://www.lexjansen.com/sesug/2015/134_Final_PDF.pdf>
6. \*Kellermann, A. P., \*Rodríguez de Gil, P., \*Pham, T., \*Rasmussen, P., \*Romano, J., **Chen, Y.-H.**, & Kromrey, J. D. (2015). *GEN\_OMEGA2: A SAS® macro for computing the generalized omega-squared effect size associated with analysis of variance models*. In the SAS Global Forum 2015 Proceedings.Cary, NC: SAS Institute Inc*.*
7. \*Li, I. Y., **Chen, Y.-H.**, \*Cao, C., & \*Wang, Y. (2014, October 19-21). *Modeling cognitive processes of Learning with SAS procedure.* In the SouthEast SAS Users Group (SESUG) 2014 Proceedings (Paper 83-14)*.* Cary, NC: SAS Institute Inc*.* <https://sesug.org/SESUG2014/>
8. **Chen, Y.-H.,** \*Li, I. Y., \*Cao, C., & \*Wang, Y. (2014, October 19-21). *Impact of q-matrix misspecification on cognitive attribute estimation in the crossed random effects LLTM model with the SAS® GLIMMIX procedure*. In the SouthEast SAS Users Group (SESUG) 2014 Proceedings (Paper SD-130**)**. Cary, NC: SAS Institute Inc. <https://sesug.org/SESUG2014/>
9. \*Nguyen, D. T., \*Pham, T. V., \*Rodriguez de Gil, P., \*Hicks, T., \*Wang, Y., \*Li, I. Y., Bellara, A., Romano, J.,Kim, E. S., \*Holmes, H., **Chen, Y.-H.**, & Kromrey, J. D. (2014, October 19-21). *ANOVA\_HOV: A SAS macro for testing homogeneity of variance in one-factor ANOVA models*. In the SouthEast SAS Users Group (SESUG) 2014 Proceedings (Paper SD-81). Cary, NC: SAS Institute Inc*.* <https://sesug.org/SESUG2014/>

### \*Pham, T., & Chen, Y.-H. (2014). *Cognitive models in educational assessment*. In the Joint Statistics Meeting (JSM) 2014 Proceedings. Alexandria, VA:  American Statistical Association. 315-324.

### \*Wang, Y., \*Bellara, A. P., \*Pham, T. V., \*Nguyen, D. T., \*Rodriguez de Gil, P., Chen, Y.-H., \*Holmes, H., \*Hicks, T., \*Li, I. Y., Kim, E. S., \*Romano, J., & Kromrey, J. D. (2014). *Comparing the performance of approaches for testing the homogeneity of variance assumption in one-factor ANOVA models.* In the Joint Statistics Meeting 2014 Proceedings, Social Statistics Section. Alexandria, VA:  American Statistical Association. 2739-2753.

1. \*Cao, C., \*Wang, Y., **Chen, Y.-H.**, & \*Li, I. Y. (2014). *Parameter estimation of cognitive attributes using the crossed-random effects linear logistic test model with PROC GLIMMIX*. In the Proceedings of the Annual SAS Global Forum Conference. Cary, NC: SAS Institute Inc.
2. **Chen, Y.-H.**, \*Li, I. Y., & Kromrey, J. D. (2013, October 20-23). *GLIMMIX\_Rasch: A SAS® macro for fitting the dichotomous Rasch model.* In the SouthEast SAS Users Group 2013 Proceedings (Paper PO-10)*.* Cary, NC: SAS Institute Inc*.* <https://analytics.ncsu.edu/sesug/2013/PO-10.pdf>
3. \*Li, I. Y., **Chen, Y.-H.,** & Kromrey, J. D. (2013, October 20-23). *Evaluating the performance of the SAS® GLIMMIX procedure for the dichotomous Rasch model: A simulation study*. In the SouthEast SAS Users Group 2013 Proceedings (Paper SD-10). Cary, NC: SAS Institute Inc*.* <https://analytics.ncsu.edu/sesug/2013/SD-10.pdf>
4. \*Kellermann, A. P., \*Romano, J., \*Rodríguez de Gil, P., \*Pham, T., \*Rasmussen, P. **Chen, Y.-H.**, \*Li, I. Y., & Kromrey, J. D. (2013, October 20-23). *GEN\_OMEGA2: A SAS® macro for computing the generalized omega-squared effect size associated with analysis of variance models*. In the SouthEast SAS Users Group 2013 Proceedings (Paper SD-11). Cary, NC: SAS Institute Inc*.* <https://analytics.ncsu.edu/sesug/2013/SD-10.pdf>
5. \*MacDonald, G., Kromrey, J. D., & **Chen, Y.-H.**, (2013). *The performance of the linear logistic test model when the Q-matrix Is misspecified: A simulation study*. In the Proceedings of Joint Statistics Meetings (JSM). Montreal, Canada: American Statistical Association.
6. \*Rodriguez de Gil, P., **Chen, Y.-H.**, Kim, E. S., \*Nguyen, D., \*Kellermann, A., \*Bellara, A., & Kromrey, J. D. (2013). *Parametric test for two population means: An empirical comparison of Type I error control and statistical power*. In the Proceedings of Joint Statistics Meetings (JSM). Montreal, Canada: American Statistical Association.
7. Kromrey, J. D., \*Li, I. Y., \*Rodriguez de Gil, P., \*Rasmussen, P., \*Romano, J., \*Bellara, A., \*Holmes, H., **Chen, Y.-H.**, \*Lanehart, R. E. & \*MacDonald. G. (2013). *Effect size indices for artificially dichotomized variables measured with error: An empirical investigation of accuracy and precision*. In the Proceedings of Joint Statistics Meetings (JSM). Montreal, Canada: American Statistical Association.
8. \*Rodriguez de Gil, P., \*Pham, T., \*Rasmussen, P., \*Kellermann, A., \*Romano, J., **Chen, Y.-H.**, & Kromrey, J. D. (2013). *GEN\_ETA2: A SAS® macro for computing the generalized eta-squared effect size associated with analysis of variance models*. In the Proceedings of the SAS Global Forum. Cary, NC: SAS Institute Inc.
9. \*Rasmussen, P., Li, I., \*Rodriguez de Gil, P., \*Romano, J., \*Bellara, A., \*Holmes, H., **Chen, Y.-H.**, Kromrey, J. (2013). *DICHOTOMIZED\_D: A SAS® macro for computing effect sizes for artificially dichotomized variables.* In the Proceedings of the SAS Global Forum. Cary, NC: SAS Institute Inc.
10. \*Kellermann, A., \*Bellara, A., \*Rodriguez de Gil, P., \*Nguyen, D., Kim, E. S., **Chen, Y.-H.**, & Kromrey, J. D. (2013). *Variance heterogeneity and non-normality: How the SAS® ttest procedure can keep us honest.* In the Proceedings of the SAS Global Forum. Cary, NC: SAS Institute Inc.
11. \*Nguyen, D., \*Rodríguez de Gil, P., Kim, E. S., \*Bellara, A. P., \*Kellermann, A., **Chen, Y.-H.**, & Kromrey, J. D. (2012). *PROC TTEST® (old friend), what are you trying to tell us?* In the Proceedings of the SouthEast SAS Users Group. Cary. NC: SAS Institute Inc*.*

***Papers in ERIC Collection***

1. **Chen, Y.-H.**, **Rendina-Gobioff; G., & Dedrick, R. F.** (2007). *Detecting effects of positively and negatively worded items in a self-concept scale among elementary students.* In the database of Education Resources Information Center (ERIC; ED 503122).
2. **Chen, Y.-H.,** Gorin, J. S., Thompson, M. S. & Tatsuoka, K. (2006). *Verification of cognitive attributes required to solve the TIMSS-1999 mathematics items for Taiwanese students*. In the database of Education Resources Information Center (ERIC; ED 491509).
3. **Chen, Y.-H.**, & Thompson, M. S. (2004). *Confirmatory factor analysis of a school self-concept inventory.* In the database of Education Resources Information Center (ERIC; ED 490658).
4. **Chen, Y.-H.**, & Thompson, M. S. (2003). *Relations among teacher expectancies, student perceptions of teacher oral feedback, and student self-concept: An empirical study in Taiwanese elementary schools.* In the database of Education Resources Information Center (ERIC; ED 482682).

***Technical Reports***

1. **Chen, Y.-H.**, Hsu, C.-L., Wu, Y-J., Yi, Z., Wang, Y., & Thompson, D. R. (2023). *Exploring attribute hierarchies of the van Hiele theory using diagnostic classification modeling and structural equation modeling*. University of Chicago School Mathematics Project. <https://ucsmp.uchicago.edu/resources/van-hiele/>
2. Senk, S. L., Thompson, D. R., **Chen, Y.-H.**, Voogt, K., & Usiskin, Z. (2022). *The Van Hiele Geometry Test: Suggested Revisions for an Oft-Used Instrument*. University of Chicago School Mathematics Project. <https://ucsmp.uchicago.edu/resources/van-hiele/>
3. **Chen, Y.-H.**, Kromrey, J. D., & \*Pham, T. (2012). *Test equating with small sample sizes: A review of literature.* Technical Report Prepared for Professional Testing, Inc.
4. Gorin, J. S., Blanchard, J., & **Chen, Y.-H.** (2005). *Comparison of high and low implementation of TargetTeach on elementary and middle school reading and mathematics achievement in Columbus, Ohio*. Technical Report Prepared for Evans and Newton, Inc.
5. Green, S., Rivera, R. Yang, Y. & **Chen, Y.-H.** (2003). *Revising the COE student ratings of teaching effectiveness.* Technical Report Prepared for the College of Education College Council.

**PRESENTATIONS in the CONFERENCES (\* indicates a graduate student; # indicates a postdoctoral/junior researcher)**

***International and National Conferences***

1. **Chen, Y.-H.,** Hsu, C.-L., Wu, Y.-J., & Qiao, X. **(2025**, accepted). The accuracy of identifying attribute hierarchies in classroom diagnostic assessment. Proposal submitted to AERA2025 annual conference.
2. Bryan, S., Tang, C., **Chen, Y.-H.**, & Hogarty, K. **(2024**, July 28th). *Cognitive diagnosis of students’ performance on college chemistry via item analysis and data visualization*. Presented at the Biennial Conference on Chemical Education (BCCE). University of Kentucky.
3. Wu, Y.-J., Jin, K.-Y., Hsu, C.-L., & **Chen, Y.-H**. (2023, July). *Controlling carry-over effects across different scales in moderation analyses*. Poster presented at the 10th European Congress of Methodology (EAM), Ghent, Belgium.
4. Hsu, C.-L., Chen, S.-Y., & **Chen, Y.-H.** (2023, July). *A dynamic balancing attribute coverage method for CD-CAT*. Paper presented at the 88th Annual Meeting of the Psychometric Society, Maryland, USA. <https://www.psychometricsociety.org/sites/main/files/file-attachments/imps2023-abstracts.pdf?1689799626>
5. Smith, P., **Chen, Y.-H.,** Yin, Y., Michels, J., Leacock, C.J., Hunte, A., & Kumi-Yeboah, A. (2023, April). *Beyond dichotomized representations of ‘language at home’ on PISA: Insights from Black immigrant literacies.* Paper presented at AERA 2023 Annual Meeting, Roundtable Session, Chicago, IL.
6. Liu, S., Dedrick, R., **Chen, Y.-H.,** Ferron, J., Li, G., Topsakal, E., Veguilla, M., Wolgemuth, J., & Yue, Y. (2022, April 21-26). A review of syllabi of university courses focusing on causal inference. AERA 2022 Annual Meeting, Paper Session. San Diego, CA.
7. Rosengrant, D., Matthews, G., Feldman, A., **Chen, Y.-H.**, & Alsultan, J. (2021 August). *Preliminary results on a video-based force concept inventory*. Physics Education Research Conference, Poster. Virtual Format. https://www.per-central.org/perc/2021/detail.cfm?ID=8440
8. \*Yin, Y., **Chen, Y.-H.**, & Dedrick, R. (2020, April). *Exploring the moderation effects of technology on Gender DIF of reading comprehension*. NCME Annual Meeting, Poster. San Francisco, California. (Conference Canceled)
9. **Chen, Y.-H.**, \*Yi, Z., & Thompson, D. R. (2020, April). *Investigating attribute hierarchical relations with multilevel mediation measurement modeling.* NCME Annual Meeting, Paper Session. San Francisco, California. (Conference Canceled)
10. #Hsu, C.-L., #Wu, Y.-J., & **Chen, Y.-H**. (2020, April). *Exploring skill hierarchical relationships of the van Hiele theory: An application of diagnostic classification modeling*. AERA Annual Meeting, Poster Session. San Francisco, CA. (Conference Canceled)
11. \*Cao, C., Kim, E., Chen, Y.-H., & Ferron, J. M. (2020, April). Exploring the impact of omitting covariates interaction effect in multilevel multiple indicators, multiple causes (MIMIC) models. AERA 2020 Annual Meeting, Paper Session. San Francisco, CA. [http://tinyurl.com/sywucdq](https://nam04.safelinks.protection.outlook.com/?url=http%3A%2F%2Ftinyurl.com%2Fsywucdq&data=02%7C01%7Cychen5%40usf.edu%7C1d601cf556c74c08e4e208d81931d901%7C741bf7dee2e546df8d6782607df9deaa%7C0%7C0%7C637287049170702999&sdata=7J8zmp1ISsAueOzgTSKZWwpnCCbEpfPuIvN0RVFBh8o%3D&reserved=0) (Conference Canceled)

### Chen, Y.-H. (2018, June). *Can CTT provide valid diagnostic profiles as CDM: An evaluation of the van Hiele geometry test*. Invited presentation at the National Academy for Educational Research (NAER), Sanxia, Taiwan.

### \*Yi, Z., \*Yin, Y., \*Cheng, K., \*Pham, T., \*Nguyen, D. T., \*Wang, Y., Kim, E. S., & Chen, Y.-H. (2018, April). *A comparison of robust tests for homogeneity of variance in factorial analysis of variance.* AERA Annual Meeting, Round Table. New York, NY.

1. \*Li, Y. I., & **Chen, Y.-H.** (2017, September). *Investigating differential item functioning in items and item groups using extended MIRID models*. International Outcome Measurement Conference (IOMC) Annual Meeting, Paper Session. Chicago, Illinois.
2. \*Yi, Z., \*Wang, Y., \*Pham, T., \*Nguyen, D. T., \*Yin, Y., Kromrey, J. D., Kim, E. S., & **Chen, Y.-H.** (2017, August). *Conditional and unconditional ANOVA tests: An empirical comparison of Type I error control and statistical power under variance heterogeneity and non-normality*. Joint Statistics Meetings (JSM) Annual Meeting, Paper Session. Baltimore, Maryland.
3. \*Yin, Y., **Chen, Y.-H.,** & \*Yi, Z. (2017, April 28). *Investigating potential source caused gender DIF in reading literacy assessment.* NCME Annual Meeting, Poster Session. San Antonio, Taxes.
4. **Chen, Y.-H.**, \*Li, Y. I., Dedrick, E., & Dedrick, R. (2017, April 29). *Are diagnostic profiles of reading skill mastery valid and reliable?* NCME Annual Meeting, Paper Session. San Antonio, Taxes.
5. **Chen, Y.-H.** (2017, April 29). *Exploration of DIF grouping methods: An empirical study across two countries*. NCME Annual Meeting, Paper Session. San Antonio, Taxes.
6. \*Wang, Y., Kim, E. S., \*Nguyen, D. T., \*Pham, T. **Chen, Y.-H.**, \*Yi, Z., \*Yue, Y., & Kromrey, J. D (2017, April 30). *Evaluating the efficacy of conditional ANOVA under nonnormality and heterogeneity*. AERA Annual Meeting, Paper Session. San Antonio, Taxes.
7. \*Pham, T. V., Kim, E. S., **Chen, Y.-H.**, \*Wang, Y., \*Nguyen, D., Kromrey, J. D. (2016, July 31). *Comparing performance of tests for one-factor ANOVA models under heterogeneity and Non-normality: A Monte Carlo Simulation Study*. Joint Statistics Meetings (JSM) Annual Meeting, Poster Session. Chicago, Illinois.
8. \*Kellermann, A. P., Kromrey, J. D., \*Rodríguez de Gil, P., \*Pham, T. V., \*Romano, J. L., \*Rasmussen, P. S., **Chen, Y.-H.** (2016, May 23). *An investigation of accuracy and precision of the generalized Omega-squared effect size based on various research designs*. Modern Modeling Methods (M3) Annual Meeting, Paper Session. University of Connecticut, Connecticut.
9. \*Li, I. Y. & **Chen, Y.-H.** (2016, April 9). *Evaluating DIF detection procedure in the context of the MIRID.* NCME Annual Meeting, Poster Session. Washington, DC.
10. Smith, G. G., Feldman, A., Trendell-Nation, M., Lou, Y., **Chen, Y.-H**., Walker, C., & Wang, P. (2016, April 8). *Computer games in a science fiction novel to learn climate change science.* AERA Annual Meeting, Rountable Session. Washington, DC.
11. \*Nguyen, D. T., Kim, E. S., \*Pham, T. V. \*Wang, Y., Kromrey, J. D., & **Chen, Y.-H.** (2016, April 10).*Testing mean equality under heterogeneity and nonnormality: An empirical comparison of tests for one-factor models.* AERA Annual Meeting, Roundtable Session. Washington, DC.
12. **Chen, Y.-H.**, \*Msieng, J., \*Yin, Y., & \*Li, I. Y. (2016, February 19). *Examining the impact of item phrasing on differential item functioning: Multi-group confirmatory factor analysis versus logistic regression.* Eastern Educational Research Association (EERA) Annual Meeting, Paper Session. Hilton Head Island, SC.
13. \*Yin, Y., **Chen, Y.-H.**, Leu, Y.-C., \*Li, I. Y., & #Hu, J. (2016, February 19). *Application of cognitive diagnosis modeling to conceptual fractions data.* Eastern Educational Research Association (EERA) Annual Meeting, Paper Session. Hilton Head Island, SC.
14. #Hu, J., Serovich, J. M., **Chen, Y.-H.**, Brown, M. J., & Kimberly, J. A. (2015, December 6). *Validity study of the serostatus disclosure attitude: A Rasch model approach.* National HIV Prevention Conference Annual Meeting, Paper Session. Atlanta, GA.
15. #Hu, J., Serovich, J. M., **Chen, Y.-H.**, Brown, M. J., & Kimberly, J. A. (2015, December 6). *A latent growth model for assessing stress level of HIV patients.* National HIV Prevention Conference Annual Meeting, Paper Session. Atlanta, GA.
16. \*Wang, Y., **Chen, Y.-H.**, \*Li, I. Y., & \*Cao, C. (2015, September 28). *Can fit indices yielded from the SAS GLIMMIX procedure select the accurate Q-matrix?* SouthEast SAS Users Group (SESUG) Annual Meeting, Paper Session. Savannah, Georgia.
17. **Chen, Y.-H.** & \*Li, I. Y. (2015, September 28). *IA\_CTT: A SAS® macro for conducting item analysis based on the classical test theory.* SouthEast SAS Users Group (SESUG) Annual Meeting, Paper Session. Savannah, Georgia.
18. **Chen, Y.-H.** (2015, June 24). *Applying cognitive diagnostic profiles to meaningfully explain differential item functioning.* Chinese American Educational Research and Development Association (CAERDA) International Annual Meeting, Paper Session. Taichung, Taiwan.
19. **Chen, Y.-H.,** & Leu, Y.-C. (2015, June 25). *Cognitive diagnosis of Taiwanese students’ conceptual development of fractions.* Chinese American Educational Research and Development Association (CAERDA) International Annual Meeting, Paper Session. Taichung, Taiwan.
20. \*Wang, Y., \*Rodriguez de Gil, P., Bellara, A. P., **Chen, Y.-H.**, \*Hicks, T., \*Holmes, H., Kim, E. S., Kromrey, J. D., \*Li, I. Y., \*Nguyen, D. T., \*Pham, T. V., & Romano, J. (2015, April 16). *Homogeneity of variance assumption: An empirical investigation of fourteen approaches in one-factor ANOVA models*. AERA Annual Meeting, Roundtable Session. Chicago, Illinois.
21. \*Kellermann, A. P., \*Rodriguez de Gil, P., \*Pham, T. V., Kromrey, J. K., Romano, J., & **Chen, Y.-H.** (2015, April 17). *Accuracy and precision of generalized Omega-squared: An empirical investigation of research design and non-normality*. AERA Annual Meeting, Paper Session. Chicago, Illinois.
22. \*Cao, C., **Chen, Y.-H.**, \*Li, I. Y., & \*Wang, Y. (2015, April 18). *Sensitivity of fit indices to Q-matrix misspecification in the CRE-LLTM.* NCME Annual Meeting, Poster Session. Chicago, Illinois.
23. \*Kellermann, A. P., \*Rodriguez de Gil, P., \*Pham, T. V., Kromrey, J. K., Romano, J., & **Chen, Y.-H.** (2015 April 26). *Gen\_Omega2: A SAS macro for computing the generalized omega-squared effect size associated with analysis of variance models*. SAS Global Forum Annual Meeting, Paper Session. Dallas Texas.
24. Kromrey, J. D., \*Wang, Y., \*Rodriguez de Gil, P., Bellara, A. P., **Chen, Y.-H.**, \*Hicks, T., \*Holmes, H., Kim, E. S., \*Li, I. Y., \*Nguyen, D. T., \*Pham, T. V., & Romano, J. (2015, February 19). *Testing homogeneity of variance in one-factor ANOVA models: A plethora of approaches to consider.* American Statistical Association (ASA) Conference on Statistical Practice (CSP) Annual Meeting, Poster Session. New Orleans, Louisiana.
25. \*Pham, T., & **Chen, Y.-H.** (2014, August). *Cognitive models in educational assessment* [Paper Session]. Joint Statistics Meetings (JSM) Annual Meeting. Boston, Massachusetts.
26. Wang, Y., Bellara, A. P., Pham, T. V., Nguyen, D. T., Rodriguez de Gil, P., **Chen, Y.-H.**, Holmes, H., Hicks, T., Li, I. Y., Kim, E. S., Romano, J., & Kromrey, J. D. (2014, April). *Comparing the performance of approaches for testing the homogeneity of variance assumption in one-factor ANOVA models* [Paper Session]*.* Joint Statistics Meetings (JSM) Annual Meeting. Boston, Massachusetts.
27. Rasmussen, P., Rodriguez de Gil, P., Kellerman, A., Pham, T. V., Romano, J., **Chen, Y.-H.**, & Kromrey, J. D. (2014, May). ***An investigation of accuracy and precision of the generalized eta-squared effect size based on various research designs* [Paper Session].** The **Modern Modeling Methods (M3) Conference Annual Meeting,** Storrs, *C*onnecticut.
28. Holmes, H., Rodriguez de Gil, P., Li, I. Y., Bellara, A., **Chen, Y.-H.,** Hicks, T., Kim, E. S., Kromrey, J. D., Nguyen, D., Pham, T. V., Romano, J., & Wang, Y. (2014, May). ***Testing the homogeneity of variance assumption: An investigation of the performance of ten different approaches in one-factor ANOVA models* [Paper Session]***.* The **Modern Modeling Methods (M3) Conference Annual Meeting,** Storrs, *C*onnecticut.
29. Li, I. Y., Chen, Y.-H., & \*Cao, C. (2014, April). *Comparing three approaches for estimating parameters of cognitive attributes* [Paper Session]. NCME Annual Meeting, Philadelphia, Pennsylvania.
30. **Chen, Y.-H.,** \*Li, I. Y., \*Cao, C., & \*MacDonald, G. (2014, April). *Q-matrix misspecification in the LLTM model with random item effects* [Paper Session]*.* NCME Annual Meeting, Philadelphia, Pennsylvania.
31. Li, I. Y., **Chen, Y.-H.**, Shaunessy-Dedrick, E., & \*Cao, C. (2014, April). *Verifying and modifying cognitive attributes for a reading comprehension test based on the general diagnostic model* [Poster Session]*.* AERA Annual Meeting, Philadelphia, Pennsylvania.
32. Cao, C., **Chen, Y.-H.,** Li, I. Y., & Wang, Y. (2014, April). *Impact of Q-matrix misspecification on cognitive attributes estimation: A simulation study of comparing three estimation approaches* [Paper Session]*.* AERA Annual Meeting, Philadelphia, Pennsylvania.
33. \*MacDonald, G., Kromrey, J. D., & **Chen, Y.-H**. (2014, April). *Effects on the linear logistic test models cognitive components when the person distribution is skewed* [Poster Session]*.* AERA Annual Meeting, Philadelphia, Pennsylvania.
34. \*Rodriguez de Gil, P., \*Pham, T., \*Rasmussen, P., \*Kellermann, A., Romano, J., **Chen, Y.-H.**, & Kromrey, J. D. (2014, April). *Accuracy and precision of generalized eta-squared: An empirical investigation of research design and non-normality* [Paper Session]*.* AERA Annual Meeting, Philadelphia, Pennsylvania.
35. \*Cao, C., \*Wang, Y., **Chen, Y.-H.**, & \*Li, I. Y. (2014, March). *Parameter estimation of cognitive attributes using the crossed-random effects linear logistic test model with PROC GLIMMIX* [Paper Session]. SAS Global Forum Annual Meeting, Washington D. C.
36. \*Nguyen, D., \*Kellermann, A., \*Rodríguez de Gil, P., Kim, E. S., **Chen, Y.-H.**, & Kromrey, J. D. (2014, February). *A simulation study to compare the performance of independent means t-test and alternatives in terms of type I error and statistical power* [Paper Session]*.* The ASA Conference on Statistical Practice Annual Meeting, Tampa, Florida.
37. Kellermann, A., Rodriguez de Gil, P., Pham, T., Rasmussen, P., Romano, J., **Chen, Y.-H.**, & Kromrey, J. (2014, February). *An introduction to the generalized eta-squared effect size associated with analysis of variance models* [Paper Session]*.* The ASA Conference on Statistical Practice Annual Meeting, Tampa, Florida.
38. \*MacDonald, G., Kromrey, J. D., & **Chen, Y.-H.** (2013, August). *The performance of the linear logistic test model when the Q-matrix Is misspecified: A simulation study* [Paper Session]*.* Joint Statistics Meetings Annual Meeting, Montreal, Canada.
39. \*Rodriguez de Gil, P., **Chen, Y.-H.,** Kim, E. S., \*Nguyen, D., \*Kellermann, A., \*Bellara, A., & Kromrey, J. D. (2013, August). *Parametric test for two population means: An empirical comparison of Type I error control and statistical power* [Paper Session]*.* Joint Statistics Meetings Annual Meeting, Montreal, Canada.
40. Kromrey, J. D., Li, I. Y., \*Rodriguez de Gil, P., \*Rasmussen, P., \*Romano, J., \*Bellara, A., \*Holmes, H., **Chen, Y.-H.,** #Lanehart, R. E. & \*MacDonald. G. (2013, August). *Effect size indices for artificially dichotomized variables measured with error: An empirical investigation of accuracy and precision* [Paper Session]*.* Joint Statistics Meetings Annual Meeting, Montreal, Canada.
41. \*Rodriguez de Gil, P., \*Nguyen, D., Kim, E. S., \*Kellermann, A. P., \*Bellara, A. P., **Chen, Y.-H.**, & Kromrey, J. D. (2013, April). *Testing two population means: Another look at alternative approaches* [Paper Session]*.* AERA Annual Meeting, San Francisco, California.
42. \*Rasmussen, P., \*Li, I., \*Rodriguez de Gil, P., \*Romano, J., \*Bellara, A., \*Holmes, H., **Chen, Y.-H.**, Kromrey, J. (2013, April). *DICHOTOMIZED\_D: A SAS® macro for computing effect sizes for artificially dichotomized variables* [Paper Session]*.* SAS Global Forum Annual Meeting, San Francisco, California.
43. \*Rodriguez de Gil, P., \*Pham, T., \*Rasmussen, P., \*Kellermann, A., \*Romano, J., **Chen, Y.-H.**, & Kromrey, J. D. (2013, April). *GEN\_ETA2: A SAS® macro for computing the generalized eta-squared effect size associated with analysis of variance models* [Paper Session]*.* SAS Global Forum Annual Meeting, San Francisco, California.
44. \*Kellermann, A., \*Bellara, A., \*Rodriguez de Gil, P., \*Nguyen, D., Kim, E. S., **Chen, Y.-H.**, & Kromrey, J. D. (2013, April). *Variance heterogeneity and non-normality: How the SAS® ttest procedure can keep us honest* [Paper Session]*.* SAS Global Forum Annual Meeting, San Francisco, California.
45. **Chen, Y.-H.** (2012 April). *Cross-cultural validation of the hypothesized construct of the TIMSS-2007 mathematics test: A DIF approach.* Presented at the annual meeting of the National Council on Measurement in Education, Vancouver, British Columbia.
46. \*Pride, B., Ferron, J., Dedrick, R., **Chen, Y.-H.**, & Dennis, D. (2012 April). *Sensitivity of Value-Added School Effect Estimates to Different Model Specifications and Outcome Measures.* AERA annual meeting. Vancouver, British Columbia.
47. **Chen, Y.-H.** (April, 2012). *Applying differential item functioning to validate the construct structure and diagnostic classification for diagnostic assessment.* Presented at the annual meeting of the American Educational Research Association, Vancouver, British Columbia.
48. \*Guerere, C., \*Brummer, R., & **Chen, Y.-H.** (April, 2011). *Distinguishing Latent Classes of Mathematics Performance: A Comparison between the Eastern and Western Countries.* Presented at the annual meeting of the National Council on Measurement in Education, New Orleans, Louisiana.
49. \*MacDonald, G., \*Pham, T., **Chen, Y.-H.**, Ferron, J., & \*Cao, C. (April, 2011). *Exploring and Validating the Cognitive Load for Mathematics Items: Comparing Canadian, Japanese, Taiwanese and United States Students.* Presented at the annual meeting of the National Council on Measurement in Education, New Orleans, Louisiana.
50. **Chen, Y.-H.**, & \*Lunsford, G. D. (April, 2011). *Latent Class Analysis of Test Anxiety Inventory: A Mixed Rasch Model*. Presented at the annual meeting of the National Council on Measurement in Education, New Orleans, Louisiana.
51. Lo, W. -J., **Chen, Y.-H**., & #Khojast, J. (2011). *The Parental Bonding Instrument: Investigating Method Effects with Negatively Wording Items and Testing of Factorial Invariance between Gender Equivalence.* Presented at the annual conference of the American Educational Research Association, New Orleans, Louisiana.
52. **Chen, Y.-H.,** & Lo, W.-J. (April, 2011). *Exploring Method Effects on an Attitude toward Mathematics Scale across American and Taiwanese Eighth Graders: A Confirmatory Factor Analysis Approach.* Presented at the Annual Conference of the American Educational Research Association, New Orleans, Louisiana.
53. \*Gloudemans, J., \*Owens, C., \*Pride, B., \*Lang, T., Dedrick, R., Ferron, J., **Chen, Y.-H.,** \*Pham, T., & \*Petit-Bois, M. (April, 2011). ‎*A Review of the Use of Value-Added Models to Determine Teacher and School Effectiveness.* Presented at the annual conference of the American Educational Research Association, New Orleans, Louisiana.
54. **Chen, Y.-H.** (2010, April). *A diagnostic assessment design: A mixed method of the cognitive and psychometric models.* Chinese American Educational Research and Development Association Annual Meeting, San Diego, California.
55. **Chen, Y.-H.,** \*Zha, S., & \*Li, H. (2009, April). *Impact of Teachers’ Computer Use on Students’ Mathematics Achievement in Elementary Classrooms: Comparisons between Taiwan and U.S* [Paper Session]*.* Chinese American Educational Research and Development Association Annual Meeting, San Diego, California.
56. \*Wu, H.-J., **Chen, Y.-H.**, Wu, P.-L., Vasquez C., & Olphen, M. V. (2009, April). *Anxiety and reading comprehension performance: A case study of a private university in Taiwan* [Paper Session]*.* Chinese American Educational Research and Development Association Annual Meeting, San Diego, California.
57. \*Gianopulos, G., John Ferron, J. M., Dedrick, R. F., **Chen, Y.-H.,** & Stark, S. (2009, April). *The Robustness of Rasch True Score Preequating to Violations of Model Assumptions* [Paper Session]. AERA Annual Meeting, San Diego, California.
58. \*Macdonald, G., **Chen, Y.-H.,** & Leu, Y.-C. (2009, April). *Exploring cognitive sources of item difficulty of mathematic fraction items* [Poster Session]*.* NCME Annual Meeting, San Diego, California.
59. **Chen, Y.-H.** (2009, April). *A unified approach that combines differential item functioning with the rule-space method for validating cognitive attributes for the TIMSS mathematics items* [Paper Session]*.* NCME Annual Meeting, San Diego, California.
60. \*Fay, R., & **Chen, Y.-H.** & Leu, Y.-C. (2009, April). *Substantive and cognitive interpretations of gender DIF on a fraction concept test* [Paper Session]*.* NCME Annual Meeting, San Diego, California.
61. **Chen, Y.-H.**, Yang, Y., Lo, W.-J., & Zhang, Y. (2009, April,). *Cross-cultural evaluation of item wording effects on a self-perception scale* [Paper Session]*.* AERA Annual Meeting, San Diego, California.
62. **Chen, Y.-H.** & \*Misieng, J. (March, 2008). *CFA, IRT, and Logistic Regression Approaches to exploring the impact of item wording on DIF*. AERA Annual Meeting, New York, NY.
63. \*Pride, B., \*Chavez, T., **Chen, Y.-H.,** \*Owens, C., & Leu, Y.-C. (2008, March). *An exploration of cognitive skills and knowledge underlying the TIMSS-2003 fourth grade mathematics items.* NCME Annual Meeting, New York, NY.
64. \*Pride, B., **Chen, Y.-H**., & Leu, Y.-C. (2008, March). *Distinguishing latent classes behind item responses to the fraction concept test among Taiwanese elementary students.* NCME Annual Meeting, New York, NY.
65. **Chen, Y.-H.,** Ferron, J. M., Gorin, J. S., Thompson, M. S., & Tatsuoka, K. K. (2008, March). *Subgroup comparisons of Taiwanese mathematics performance: From a perspective of cognitive attributes*. AERA Annual Meeting, New York, NY.
66. **Chen, Y.-H.** (2007, April). *To know what we are supposed to know behind the test and test scores: Penetrating Chinese mathematics performance on TIMSS-1999*. Chinese American Educational Research and Development Association Annual Meeting, Chicago, Illinois.
67. **Chen, Y.-H.**, Liu, C.-W., & Chu, J.- C. (2007, April). *Cognitive diagnosis of erroneous and correct patterns of the two-digit subtraction arithmetic among Taiwanese elementary students.* Chinese American Educational Research and Development Association Annual Meeting, Chicago, Illinois.
68. **Chen, Y.-H**., Gorin, J. S., Thompson, M. S. & Tatsuoka, K. (2007, April). *An alternative examination of Taiwanese mathematics achievement: Application of rule -space methodology to TIMSS-1999*. AERA Annual Meeting, Chicago, Illinois.
69. **Chen, Y.-H.**, Gorin, J. S., Thompson, M. S. & Tatsuoka, K. (2006, April). *Verification of cognitive attributes required to solve the TIMSS-1999 mathematics items for Taiwanese students*. AERA Annual Meeting, San Francisco, California.
70. Thompson, M. S., Gorin, J. S., Obeidat, K., & **Chen, Y.-H.** (2006, April). *Academic precursors of underrepresented groups in postsecondary education: Findings from multiple data sources*. AERA Annual Meeting, San Francisco, California.
71. Yang, Y., Argo, A., Lo, W.-J., **Chen, Y.-H.,** Gorin, J. S., Green, S. B., Thompson, M. S., Krech, P. R., & Mitchell, L. (2005, April). *Item Analysis Methods for Emergent Factors: A Case Study of a Stress Scale*. AERA Annual Meeting. Montréal, Canada.
72. Gorin, J. S., & **Chen, Y.-H.** (2004, April). *Manipulation of Processing Difficulty on Reading Comprehension Test Questions: A Step Towards Item Generation.* AERA Annual Meeting, San Diego, California.
73. **Chen, Y.-H.,** & Thompson, M. S. (2003, April). *Relations among teacher expectancies, student perceptions of teacher oral feedback, and student self-concept: An empirical study in Taiwanese elementary schools*. AERA Annual Meeting, Chicago, Illinois.
74. Thompson, M. S., Green, S. B., Stockford, S. M., **Chen, Y.-H.,** & Lo, W.-J. (2002, April). *The .05 Level: The probability that the independent-samples t test should be applied?* AERA Annual Meeting, New Orleans, Louisiana.

***Regional and Local Conferences***

1. **Chen, Y.-H.,** Tang, C., Hogarty, K., & Bryan, S. **(2024**, November 20-22). *Cognitive diagnosis of college students’ performance on chemistry via item analysis and data visualization*. Paper presented at the Florida Educational Research Association (FERA), Orlando, Florida.
2. **Chen, Y.-H.**, Qiao, X., Hsu, C.-L., & Wu, Y.-J. (**2024**, November 20-22). *Evaluation of fit Indices for identifying attribute hierarchies in the “CDM” r package.* Paper presented at Florida Educational and Research Association (FERA) 2024 Annual Conference. Orlando, Florida.
3. **Chen, Y.-H.**, Hogarty, K. Tang, C., Bryant, S. (**2024**, April 9). *Unveil the box between teaching and learning: Diagnosis assessment* [Poster Session]. Presented at the 2024 Celebration of Teaching in the Center of Innovative Teaching and Learning (CITL) at the University of South Florida, Tampa, Florida.
4. Liu, S., Dedrick, R., **Chen, Y.-H.,** Ferron, J., Li, G., Topsakal, E., Veguilla, M., Wolgemuth, J., & Yue, Y. **(2021, April 21-26**). *A review of syllabi of university courses focusing on causal inference*. FERA Annual Meeting, Paper Session. Tampa, FL.
5. \*Yin, Y. & **Chen, Y.-H**. (2019, February 22). *The investigation of gender, technology, and their Interaction DIF items on mathematics test using hierarchical generalized linear models* [Paper Session]. EERA Annual Meeting, Myrtle Beach, SC
6. **Chen, Y.-H.,** Senk, S., Thompson, D., & Voogt, K. (2017, November,). *An evaluation of the van Hiele Geometry Test: Comparing analyses from three psychometric methods* [Paper Session]*.* FERA Annual Meeting, Cocoa Beach, Florida.
7. **Chen, Y.-H.,** Yi, Z., Wang, Y., & Thompson, D. (2017, November). *Application of multilevel structural equation modeling to the van Hiele Geometry test* [Paper Session]*.* FERA Annual Meeting, Cocoa Beach, Florida.
8. Yin, Y., **Chen, Y.-H.,** & Yi, Z. (2016, November). *Investigating potential source caused gender DIF in reading literacy assessment* [Paper Session]*.* FERA Annual Meeting, Lakeland, Florida.
9. Fay, R. H., Thompson, D. R., Dedrick, R., & **Chen, Y.-H.** (2016, November). *Application of the fusion model for cognitive diagnostic assessment with non‐diagnostic middle school math test items* [Paper Session]*.* FERA Annual Meeting, Lakeland, Florida.
10. \*Li, I. Y., **Chen, Y.-H.**, \*Cao, C., & \*Wang, Y. (2014, October,). *Modeling cognitive processes of Learning with SAS procedure* [Paper Session]*.* SouthEast SAS Users Group (SESUG) Annual Meeting. Myrtle Beach, South Carolina.
11. **Chen, Y.-H.,** \*Li, I. Y., \*Cao, C., & \*Wang, Y. (2014, October). *Impact of Q-matrix Misspecification on Cognitive Attribute Estimation in the Crossed Random Effects LLTM Model with the SAS® GLIMMIX Procedure.* Presented at the annual meeting of SouthEast SAS Users Group. Myrtle Beach, South Carolina.
12. \*Nguyen, D. T., \*Pham, T. V., \*Rodriguez de Gil, P., \*Hicks, T., \*Wang, Y., \*Li, I. Y., \*Bellara, A., \*Romano, J., Kim, E. S., \*Holmes, H., **Chen, Y.-H.**, & Kromrey, J. D. (2014 October). ANOVA\_HOV: A SAS macro for testing homogeneity of variance in one-factor ANOVA models. Presented at the annual meeting of SouthEast SAS Users Group. Myrtle Beach, South Carolina.
13. \*Li, I. Y., \*Rodriguez de Gil, P., \*Romano, J., \*Bellara, A., \*Holmes, H., \*Rasmussen, P., **Chen, Y.-H.**, & Kromrey, J. D. (2013, November,). *An empirical comparison of seven effect size indices for dichotomized outcomes.* Presented at the annual meeting of the Florida Educational Research Association, Gainesville, Florida.
14. \*Kellermann, A., \*Patricia Rodríguez de Gil, P., \*Nguyen, D., Kim, E. S., **Chen, Y.-H.**, & Kromrey, J. D. (2013, November), *Testing two population means: Variance heterogeneity and non‐normality.* Presented at the annual meeting of the Florida Educational Research Association, Gainesville, Florida.
15. \*Li, I. Y., **Chen, Y.-H.**, Shaunessy-Dedrick, E., & \*Cao, C. (2013, November). *A comparison of IRT and GDM methods for validating a Q-matrix: An empirical study of a reading comprehension test.* Presented at the annual meeting of the Florida Educational Research Association, Gainesville, Florida.
16. \*Cao, C., **Chen, Y.-H.**, \*MacDonald, G., & \*Li, I. Y. (2013, November). *Parameter estimation of cognitive attributes using the crossed random-effects linear logistic test model: An empirical investigation of accuracy and precision.* Presented at the annual meeting of the Florida Educational Research Association, Gainesville, Florida.
17. \*Kellermann, A. P., Romano, J., \*Rodríguez de Gil, P., \*Pham, T., \*Rasmussen, P. **Chen, Y.-H.**, & Kromrey, J. D. (2013, October). *GEN\_OMEGA2: A SAS® macro for computing the generalized omega-squared effect size associated with analysis of variance models*. Presented at the annual meeting of SouthEast SAS Users Group. Saint Petersburg, Florida.
18. **Chen, Y.-H.,** \*Li, I. Y., & Kromrey, J. D. (2013, October). *GLIMMIX\_Rasch: A SAS® macro for fitting the dichotomous Rasch model.* Presented at the annual meeting of SouthEast SAS Users Group. Saint Petersburg, Florida.
19. \*Li, I. Y., **Chen, Y.-H.,** & Kromrey, J. D. (2013, October). *Evaluating the performance of the SAS® GLIMMIX procedure for the dichotomous Rasch model: A simulation study.* Presented at the annual meeting of SouthEast SAS Users Group. Saint Petersburg, Florida.
20. Nguyen, D., Rodríguez de Gil, P., Kim, E. S., Bellara, A. P., Kellermann, A., **Chen, Y.-H.**, & Kromrey, J. D. (2012). *PROC TTEST® (old friend), what are you trying to tell us?* Presented at the Annual meeting of the Southeast SAS Users Group (SESUG), Raleigh/Durham, North Carolina.
21. Cao, C. & **Chen, Y.-H.** (2012, November). *Testing measurement invariance of a reading comprehension test with the Rasch model: An introduction and an application*. Presented at the annual meeting of the Florida Educational Research Association, Gainesville, Florida.
22. **Chen, Y.-H.** (2011, November). *Does skills mastery or nonmastery result in differential item functioning?* Presented at the annual meeting of the Florida Educational Research Association, Orlando, Florida.
23. **Chen, Y.-H**. (2010, October). *Investigating Strengths and Weaknesses of Fraction Conceptual Learning: Latent Class Analysis with a Curriculum-Based Cognitive Model.* Presented in the Celebration of USF Research One Week, Tampa, Florida.
24. \*Fay, R., & **Chen, Y.-H.** (2009, November). *Clarifying Gender Item DIF and Validating Cognitive Bundle Theoretical Constructs on a Fractions Concepts Test*. Presented at the annual meeting of the Florida Educational Research Association, Orlando, Florida.
25. \*Macdonald, G., **Chen, Y.-H.**, \*Li, H., \*Fay, R., & Leu, Y.-C. (2009, November). *Exploring and Validating Cognitive Components for Mathematical Fraction Items*. Presented at the annual meeting of the Florida Educational Research Association, Orlando, Florida.
26. \*Chavez, T., & **Chen, Y.-H.** (2009, November). *Effect of the DIF Magnitude and Proportion of the DIF Items on DIF Detection Using WINSTEPS.* Presented at the annual meeting of the Florida Educational Research Association, Orlando, Florida.
27. \*Rodriguez de Gil, P., & **Chen, Y.-H.** (2009, November). *A Rasch Differential Item Functioning Analysis of the IEA Civic Education Attitudinal Test.* Presented at the annual meeting of the Florida Educational Research Association, Orlando, Florida.
28. **Chen, Y.-H.,** & Leu, Y.-C. (2008, November). *Incorporating a Cognitive Model into Interpretation of Latent Class Analysis for Fraction Assessment.* Presented at the annual meeting of the Florida Educational Research Association, Orlando, Florida.
29. **Chen, Y.-H.** (2008, May). *Examining Mathematics Instruction from a Perspective of Cognitively Diagnostic Assessment.* Presented at the annual meeting of the Chinese American Scholars Association of Florida, Orlando, Florida.
30. **Chen, Y.-H.**, **Rendina-Gobioff; G., & Dedrick, R. F.** (2007, November). *Detecting Effects of Positively and Negatively Worded Items in a Self-Concept Scale among Elementary Students.* Presented at the annual meeting of the Florida Educational Research Association, Tampa, Florida. (This paper was nominated for consideration for the Distinguished Paper Award)
31. **Chen, Y.-H.** (2005, October). A*pplication of Rule-Space Methodology to Taiwanese Eighth -Grade Mathematics Achievement: From Micro -Skill Perspectives*. Presented at the annual meeting of the Arizona Educational Research Organization, Phoenix, Arizona.
32. Gorin, J. S., Thompson, M. S., Obeidat, K., & **Chen, Y.-H**. (2005, October). *Using Multiple Data Sources to Support Diversity Research: Examining Underrepresentation in Postsecondary Education*. Presented at the 2005 Educating All of One Nation Conference of the National Council on Education, Phoenix, AZ.
33. **Chen, Y.-H.**, Lo, W.-J., & Yang, Y. (2004, October). *Exploring the Effects of Teachers’ Characteristics on Students’ Attitude and Mathematics Achievements: Application of HLM to Taiwan Data from TIMSS-1999*. Presented at the annual meeting of the Arizona Educational Research Organization, Tempe, Arizona.
34. **Chen, Y.-H.**, & Thompson, M. S. (2004, October). *Confirmatory Factor Analysis of a School Self-Concept Inventory*. Presented at the annual meeting of the Arizona Educational Research Organization, Tempe, Arizona.
35. **Chen, Y.-H.** (2004, October). C*ognitively Diagnostic Examination of Mathematics Achievement: Improving Construct Validation of Tests and Interpretations of Test Scores*. Presented at the annual meeting of the Arizona Educational Research Organization, Tempe, Arizona.
36. **Chen, Y.-H.**, Lo, W.-J., & Yang, Y. (2003, October). *Analyzing Data from Complex Large-Scale Samples*. Presented at the annual meeting of the Arizona Educational Research Organization, Tempe, Arizona.
37. Rivera, R., Yang, Y., **Chen, Y.-H.**, & Green, S. B. (2003, October). *Evaluation of Student Ratings of College Instruction: A Case Study*. Paper presented at the Arizona Educational Research Organization (AERO) 2003 annual conference, Tempe, Arizona.
38. Stockford, S., Lo, W.-J., **Chen, Y.-H.**, Thompson, M. S., Green, S. B., & Yu, C. H. (2001, October). *Confronting the statistical assumptions: New alternatives for comparing groups*. Presented at the Arizona Educational Research Organization (AERO), Tempe, Arizona.

***Invited Workshops, Brown bags, Seminars and Presentations***

1. **Chen, Y.-H.** (2025, January 24). *ChatGPT generation for classroom assessment based on textbook content in higher education.* Invited presentation to the Faculty Learning Community (FLC) group monthly meeting at the University of South Florida, Tampa, Florida.
2. **Chen, Y.-H.** (2018, July). *Can CTT provide valid diagnostic profiles as CDM: An evaluation of the van Hiele Geometry Test.* Invited Presentation at the Research Center for Testing and Assessment at the National Academy for Educational Research (NAER), New Taipei, Taiwan.
3. **Chen, Y.-H.** (2015, May). *Test development: Item writing rules and validation process*. Invited Presentation at the meeting of MSP workshop. Tampa, Florida.
4. **Chen, Y.-H.**, Cao, C., & Green, S. (2013, November). *AVID field test report.* Invited presentation at the annual meeting of the Central Florida Assessment Collaborative Team. Orlando, Florida.
5. **Chen, Y.-H.** (2013, October). *Defining and constructing cognitive diagnostic assessments*. Invited presentation in the Center for Research, Evaluation, Assessment, and Measurement (CREAM), Tampa, Florida.
6. **Chen, Y.-H.**, Kromrey, J. D., & Pham, T. (2012, October). *Testing equating with small samples: A review of literature.* Invited presentation to Professional Testing, Inc., in the David Anchin Center at the University of South Florida, Tampa, Florida.
7. **Chen, Y.-H.** (2008, January). *Large-scale educational data sources*. Invited presentation in Saturday Research Group Discussion hosted by the Department of Educational Measurement & Research at University of South Florida, Tampa, Florida.
8. **Chen, Y.-H.** (2007, January). *Rule-space methodology: Constructing more useful information from test performance*. Invited presentation in Research Methods Workshops hosted by Department of Educational Measurement & Research at the University of South Florida, Tampa, Florida.
9. **Chen, Y.-H.** (2006, June). *Rule-Space software workshop: Introductions and applications of BUGSHELL*. Invited presentation at the Psychometric Testing and Eye-tracking Laboratory (P-TEL) at Arizona State University, Tempe, Arizona.
10. **Chen, Y.-H.** (2005, November). *Examining mathematical processing knowledge and sub-skills of mathematics achievement: Application of rule-space methodology*. Invited presentation to the Testing, Evaluation, Assessment and Research (TEAR) Group at Arizona State University, Tempe, Arizona.
11. Thompson, M. S., Green, S. B., Stockford, S. M., **Chen, Y.-H.,** & Lo, W.-J. (2002, April). *Applying newer parametric approaches to old parametric problems: Trimmed means, bootstrapping, and dominance statistics*. Invited presentation in the joint session of the Educational Psychology brownbag seminar and the Psychology Department Quantitative Series seminar at Arizona State University, Tempe, Arizona.

# FUNDED GRANTS AND PROJECTS

# *External Grants Funded*

1. **Chen, Yi-Hsin** (Psychometrician). (Dr. Lou, Yiping as PI; Dr. Luanna Prevost as Co-PI; Dr. Pamela Blanchard as Co-PI). Grant Title: *Inquiry-based science learning in earth, life and physical sciences.* Sponsor: Federal Department of Education: A Pass-Through Grant. Period covered: 09/2014 - 08/2017. Project website: <http://science4inquiry.com/index.php>
2. **Chen, Yi-Hsin** (Co-PI). (Dr. Glenn Smith as PI, Dr. Allan Feldman, Dr. Yiping Lo, and Dr. Ping Wang as co-PIs). Grant Title: *Climate Change Narrative Game Education.* Contract #: NSF Grant #DRL-1316782. Period covered: 09/2013-07/2016. Total Award Amount: US $449,972.00. Project website: https://climatechange.usf.edu/website/
This project was spotlighted by CADRE (Community for Advancing Discovery Research in Education), which is the NSF hub for DRK-12 projects (2020, August). <http://cadrek12.org/analyzing-interpreting-data-across-stem-disciplines>

# Chen, Yi-Hsin (PI). (10/1/2013 - 6/30/2014). Grant Title: *Race to the Top District-Developed Assessments for the Hard-To-Measure Contents and Other Areas*. Sponsor: The School District of Osceola County. Contract number: C-14-0154-LK. U.S. $40,273. (Supported 2 graduate assistants with10 hours per semester)

# Chen, Yi-Hsin (Co-PI). (Dr. Christopher DeLuca as PI and Dr. Eun Sook Kim as Co-PI). Project Title: *Race to the Top District-Developed Assessments for Hard-To-Measure content areas. Project B: Physical Education/Health Education.* Sponsor: Hillsborough District School Board & USF College of Education Partnership. Period covered: 8/2011-5/2012. Total award amount: U.S. $12,500

# Chen, Yi-Hsin (Co-PI). (Dr. Christopher DeLuca as PI and Dr. Eun Sook Kim as Co-PI). *Race to the Top District-Developed Assessments for Hard-To-Measure Content areas. Project G: Career and Technical Education.* Sponsor: Hillsborough District School Board & USF College of Education Partnership. Period covered: 8/2011-5/2012. Total award amount: U.S. $12,500

# Chen, Yi-Hsin (PI). (Dr. Jeff Kromrey as co-PI; 1/1/2012 - 8/31/2012). *Testing equating with small sample sizes*. Funded by *Professional Testing*, a private testing company. U.S. $31,864.11. (Supported a graduate assistant for 10 hours a semester)

# *Internal Grants Funded*

1. **Chen, Yi-Hsin (Co-facilitator with Dr. Kamila Dell).** Project title: ***Content and Item Analyses of Classroom Quizzes: Development of Test Blueprint with AI.*** Sponsor: The Center for Innovative Teaching and Learning (CITL) at the University of South Florida, the Faculty Learning Community (FLC) program. Period covered: 9/1/2024-7/31/2025. Total award amount: U.S. $3,500
2. **Chen, Yi-Hsin (Designer).** ***Spring innovative online course refreshment project for EDF6407 –Statistical Analysis for Educational Research I***. Funded by the Innovation Education (InEd) in the Center for Innovative Teaching and Learning (CITL) at the University of South Florida Period covered: 1/10/2024 – 5/9/2024. Stipend: U.S. $2,000 dollars.
3. **Chen, Yi-Hsin (Facilitator).** Project title: ***Diagnosis Assessments for Improving Learning and Teaching***. Sponsor: The Center for Innovative Teaching and Learning (CITL) at the University of South Florida, the Faculty Learning Community (FLC) program. Period covered: 9/1/2023-7/31/2024. Total award amount: U.S. $3,500
4. **Chen, Yi-hsin (Designer).** (6/1/2017 - 8/15/2017). ***Summer innovative online education course refreshment project for EDF 6407 Statistical Analysis for Educational Research I***. Funded by the USF Innovative Online Course Grant. Stipend: U.S. $4,000.
5. **Chen, Yi-hsin (Designer).** (6/1/2016 - 8/15/2016). ***Summer innovative online education course refreshment project for EDF 6432 Foundations of Measurement***. Funded by the USF Innovative Online Course Grant. Stipend: U.S. $4,000.

# Chen, Yi-hsin (PI). (5/1/2010 - 5/31/2011). *Developing diagnostic assessment modules for the Foundations of Measurement Course*. Funded by the Center for 21st Century Teaching Excellence at USF for the Innovative Teaching Opportunities (iTOPP) grant. U.S. $1,980.

# Chen, Yi-hsin (PI). (5/1/2010 - 5/31/2011). *Developing diagnostic assessment and remedial instruction system (DARIS) for Statistical Analysis for Educational Research I*. Funded by the Center for 21st Century Teaching Excellence at USF for the Innovative Learning-Centered Grant (IL-CG). Award U.S. $3,966.

# Chen, Yi-Hsin (PI). (9/1/2007-2/28/2009). *An exploration of cognitive skills and knowledge underlying the TIMSS-2003 eighth-grade mathematics items*. Funded by the College of Education Mini-Grant program. Total Request Amount: U.S. $5,000.

**Journals of Editorial Board Members and Reviewers**

(a) Editorial Board Member (7 Journals)

1. Frontiers in Psychology (Since **2022-Present**): Review Editor for Educational Psychology
2. Frontiers in Education (Since **2022-Present**): Review Editor for Educational Psychology
3. The Journal of Experimental Education (JXE; Since 2011 - **Present**)
4. International Journal of School and Educational Psychology (USEP; Since 2019 – **Present**)
5. Psychology and Behavioral Sciences (PBS; 7/2020 – **Present**)
6. Tunghai Educational Review (2/1/2019 – 7/31/2020)
7. The International Journal of Educational and Psychological Assessment (TIJEPA; 2010 - 2013)

(b) Invited Journal Reviewer (45 Journals)

1. Advances and Applications in Statistics (AAS; 2023)
2. Asian Pacific Education Review (APER; 2022; 2023)
3. Asia Pacific Journal of Education (APJE; 2010)
4. Applied Psychological Measurement (APM; 2019,2020,2022)
5. British Journal of Mathematical and Statistical Psychology (2014, 2018, 2023)
6. Behavior Research Method (2014, 2018, 2021-**2024**)
7. BMC Public Health (2023)
8. Cogent Education (2015, 2018)
9. Cogent Psychology (2020)
10. Computers in Haman Behavior Reports (2023)
11. Canadian Social Science (CSS; 2012)
12. Educational Measurement: Issues and Practice (EMIP; 2010, 2011,**2024**)
13. Educational and Psychological Measurement (EPM; 2018, 2020-2021)
14. Educational Psychology (EP; 2019)
15. Educational Policy (2018, 2021)
16. Educational Studies in Mathematics (2020)
17. Frontiers in Education (2018, 2023-**2024**)
18. Frontiers in Psychology (2022, 2023)
19. Heathcare (ISSN 2227-9032) (2023, **2024**)
20. Information (2023)
21. International Journal of Information and Educational Technology (2021)
22. International Journal of Knowledge and Learning (IJKL; 2019, 2020)
23. International Journal of Environmental Research and Public Health (IJERPH; 2022)
24. International Journal of Quantitative Research in Education (IJQRE; 2016, 2019)
25. International Journal of School and Educational Psychology (USEP; 2017-2023)
26. International Journal of Testing (IJT; 2008, 2010 – 2017, 2020)
27. Journal of Applied Measurement (JAM; 2021, 2022)
28. Journal of Language and Education (2020)
29. Journal of Cross-Cultural Psychology (JCCP; 2013)
30. Journal of Intelligence (**2024**)
31. Journal of Psychoeducational Assessment (JPA; 2014, 2015, 2022,2023)
32. Journal of Educational Measurement (JEM; 2014, 2019, 2022)
33. Journal of Educational Research (JER; **2024**)
34. Journal of Statistical Software (JSS; 2014)
35. Journal of School Psychology (JSP;2022-**2024**)
36. Journal of Experimental Education (JXE; Since 2007-**2024**)
37. Journal of Modern Applied Statistical Methods (JMASM; 2017, 2018)
38. Mathematics (2021IF: 2.592; 2022)
39. Measurement: Interdisciplinary Research and Perspectives (2015, 2018-2021)
40. Nordic Psychology (2016)
41. PLoS ONE (2014, 2015, 2016, 2018-2021)
42. Psych (2023)
43. SAGE Open (SO; 2019-2021)
44. Scandinavian Journal of Educational Research (2018, **2024**)
45. Scientific Africa (2022)
46. Scientific Reports (Q1;2022)
47. SN Social Science (2021)
48. Sustainability (2023-**2024**)
49. The International Journal of Educational and Psychological Assessment (TIJEPA; 2010 - 2013)