Curriculum Vitae

10/26/2021

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 |
| 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 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 |

**SCHOLARLY WORK**

My research focuses are in following related areas: (a) Applications of cognitive psychometric models (e.g., generalized DINA, LCDM, RUMM) which incorporate cognitive information into psychometric models. (b) Exploration of validating approaches (e.g., DIF, internal and external score validity) for Q-matrices and cognitive diagnostic profiles; (c) Examination of accuracy and precision of robust statistical approaches for traditional t-tests and ANOVA tests; and (d) Applications of multilevel modeling (MLM) approaches (e.g., IRT, Rasch, and SEM) to achievement data and psychological data.

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

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

1. Warrican, S. J., \*Alleyne, M., Smith, P., Esperat, T., Zaidi, R., **Chen, Y.-H.,** & \*Yin, Y. (2021, Accepted). 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.* [Impact Factor: 1.50]
2. #Chen, Y.-J., **Chen, Y.-H.,** Anthony, J., & **\***Erazo, N. (2021, Accepted). Evaluation of the computer-based orthographic processing assessment: An application of cognitive diagnostic modeling. *Journal of Psychoeducational Assessment.*

## \*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 | 2018IF = 2.21 | 2018SJR = 1.747 | Q1]

## \*Yi, Z., **Chen, Y.-H.** \*Yin, Y., \*Cheng, K., \*Wang, Y., \*Nguyen, D. T., \*Pham, T., & Kim, E. S. (2020; OnlineFirst). Brief research report: A comparison of robust tests for homogeneity of variance in factorial ANOVA. The Journal of Experimental Education. [SSCI | 2019IF:2.107 | 2019SJR:1.28 | h-index:54 | Q1] <https://doi.org/10.1080/00220973.2020.1789833>

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 | h-index:11 | 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. doi:10.22237/jmasm/1509496080 [AR: 21.9% | 2018IF: 0.40 | 2018SJR: 0.224 | Q2]

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]
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]

## \*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. doi:10.22237/jmasm/1462075680 [Acceptance rate = 21.9% | 2018IF = 0.40 | 2018SJR = 0.224]

## #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]

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*.* [RG journal impact = 0.30 in 2015]
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]
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*.*
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]
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)
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*.*
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)
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.
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]
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]
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.

***Book Chapter***

1. Wolgemuth, J. R., Rodríguez-Campos, L., **Chen, Y.-H.,** Kim, E. S., Ferron, J., Lamb, D. S., & Dedrick, R. F. (2021, Accepted). With humility and responsibility: Critical pragmatics of teaching and learning social science research In M. Nind (ed.), *Handbook of teaching and learning social methods*. Edward Elgar Publishing, UK.
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.
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. doi: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. doi: <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. doi**:**<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.

***Manuscripts Under Review***

1. #Wu, Y.-J., **Chen, Y.-H.**, Kiefer, S., & Carstensen, C. (2021, In 3rd review). Exploring Learning strategy use, motivation and mathematics performance among East Asian students. *SAGE Open.*
2. **Chen, Y.-H.**, Yi, Z., Wang, Y., & Thompson, D. R. (2021/8/7, In 1st review). Multilevel structural equation modeling to attribute hierarchies of the van Hiele model. *Journal of Psychoeducational Assessment*.
3. Senk, S. L., Thompson, D. R., **Chen, Y.-H.**, #Voogt, K., & Usiskin, Z. (2021, In 1st review). The van Hiele geometry test: An oft-used instrument in need of revision. *International Journal of Science and Mathematics Education.*

## \*Yin, Y. & **Chen, Y.-H.** (2021, In review 1st). Investigating gender DIF of reading comprehension test and its sources using hierarchical generalized linear model. Educational and Psychological Measurement.

1. **Chen, Y.-H.** & Thompson, D. R. (2021, In review 2nd). Cross-cultural validation of the hypothesized construct of the TIMSS mathematics test: A united approach of DINA and DIF. *Applied Measurement in Education.*

## **Chen, Y.-H.** (2021, In review). Further validation of mathematics construct and diagnostic profiles using a differential item functioning approach. Journal of Psychoeducational Assessment.

1. **Chen, Y.-H.** (In progress). Exploring latent classes of college students’ test anxiety: A mixture Rasch model. *Measurement and Evaluation in Counseling and Development*.

***Papers in Conference Proceedings***

1. \*Pham, T. V., Kim, E. S., **Chen, Y.-H.**, \*Wang, Y., \*Nguyen, D., Kromrey, J. D. (2016). *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.
2. \*Wang, Y., Chen, Y.-H., \*Li, I. Y., & \*Cao, C. (2015). *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*.*
3. **Chen, Y.-H.** & \*Li, I. Y. (2015). *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*.*
4. \*Pham, T. V., Kim, E. S., \*Nguyen, D. T., \*Wang, Y., Kromrey, J. D., & Chen, Y.-H. (2015). *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>
5. \*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*.*
6. \*Li, I. Y., **Chen, Y.-H.**, \*Cao, C., & \*Wang, Y. (2014). *Modeling cognitive processes of Learning with SAS procedure.* In the SouthEast SAS Users Group (SESUG) 2014 Proceedings*.* Cary, NC: SAS Institute Inc*.*
7. **Chen, Y.-H.,** \*Li, I. Y., \*Cao, C., & \*Wang, Y. (2014). *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. Cary, NC: SAS Institute Inc.
8. \*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). *ANOVA\_HOV: A SAS macro for testing homogeneity of variance in one-factor ANOVA models*. In the SouthEast SAS Users Group (SESUG) 2014 Proceedings. Cary, NC: SAS Institute Inc*.*

### \*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). *GLIMMIX\_Rasch: A SAS® macro for fitting the dichotomous Rasch model.* In the SouthEast SAS Users Group 2013 Proceedings*.* Cary, NC: SAS Institute Inc*.*
3. \*Li, I. Y., **Chen, Y.-H.,** & Kromrey, J. D. (2013). *Evaluating the performance of the SAS® GLIMMIX procedure for the dichotomous Rasch model: A simulation study*. In the SouthEast SAS Users Group 2013 Proceedings. Cary, NC: SAS Institute Inc*.*
4. \*Kellermann, A. P., \*Romano, J., \*Rodríguez de Gil, P., \*Pham, T., \*Rasmussen, P. **Chen, Y.-H.**, \*Li, I. Y., & Kromrey, J. D. (2013). *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. Cary, NC: SAS Institute Inc*.*
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.**, Kromrey, J. D., & \*Pham, T. (2012). *Test equating with small sample sizes: A review of literature.* Technical Report Prepared for Professional Testing, Inc.
2. 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.
3. 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.

***Manuscripts in Preparation***

## \*Yin, Y., \*Yi, Z., & **Chen, Y.-H**. (In Preparation). Investigating gender DIF and potential sources in reading literacy assessment across four English-speaking countries. Journal of Language and Education.

1. \*Dudash, J., Hernandez, V. M., & Chen, Y.-H. (*In preparation*). An exploration of nurses’ attitudes towards death and associations with background characteristics. *International Journal of Palliative Nursing*

## **Chen, Y.-H.**, \*Yin, Y., \*Li, Y. I., & Leu, Y.-C. (In preparation). Cognitive diagnosis of conceptual development of fractions for Taiwanese elementary students. International Electronic Journal of Mathematics Education.

## **Chen, Y.-H**., \*Misieng, J., \*Li, Y. I., & \*Yin, Y. (In preparation). Impact of item phrasing on detection of differential item functioning: An empirical study of the general self-concept scale. Measurement and Evaluation in Counseling and Development.

## \*Fay, R., **Chen, Y.-H.**, \*Li, I. Y., & Leu, Y.-C. (In preparation). Substantive and cognitive interpretations of gender DIF on a conceptual test of fractions. Cogent Education.

## **Chen, Y.-H.**, \*MacDonald, G., \*Pham, T., & Cao, C. (In preparation). Exploring and validating the cognitive load for mathematics items: A cross-country comparison. Journal of Mathematics Education.

## **Chen, Y.-H.,** & \*Guerere, C. (In preparation). Cross-cultural comparisons of mathematics performance: A mixture linear logistic test model. Educational Studies in Mathematics.

1. \*Erazo, N., Anthony, J., Chen, Y.-H., & Chen, Y.-J. (In preparation). U.S. children’s learning sequence of English alphabet knowledge: Classification diagnostic modeling approach to guiding instruction. *Reading Research Quarterly.* (Progress: The analyses have been completed and the project is at the early stage)

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

***International and National Conferences***

1. 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
2. \*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)
3. **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)
4. #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)
5. \*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 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. \*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
2. **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.
3. **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.
4. 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.
5. 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.
6. \*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.
7. **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.
8. \*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.
9. \*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.
10. \*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.
11. \*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.
12. \*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.
13. \*Kellermann, A. P., Romano, J., \*Rodríguez de Gil, P., \*Pham, T., \*Rasmussen, P. **Chen, Y.-H.**, & Kromrey, J. D. (October, 2013). *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.
14. **Chen, Y.-H.,** \*Li, I. Y., & Kromrey, J. D. (October, 2013). *GLIMMIX\_Rasch: A SAS® macro for fitting the dichotomous Rasch model.* Presented at the annual meeting of SouthEast SAS Users Group. Saint Petersburg, Florida.
15. \*Li, I. Y., **Chen, Y.-H.,** & Kromrey, J. D. (October, 2013). *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.
16. 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.
17. Cao, C. & **Chen, Y.-H.** (November, 2012). *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.
18. **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.
19. **Chen, Y.-H**. (October, 2010). *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.
20. \*Fay, R., & **Chen, Y.-H.** (November, 2009). *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.
21. \*Macdonald, G., **Chen, Y.-H.**, \*Li, H., \*Fay, R., & Leu, Y.-C. (November, 2009). *Exploring and Validating Cognitive Components for Mathematical Fraction Items*. Presented at the annual meeting of the Florida Educational Research Association, Orlando, Florida.
22. \*Chavez, T., & **Chen, Y.-H.** (November, 2009). *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.
23. \*Rodriguez de Gil, P., & **Chen, Y.-H.** (November 2009). *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.
24. **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.
25. **Chen, Y.-H.** (May 2008). *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.
26. **Chen, Y.-H.**, **Rendina-Gobioff; G., & Dedrick, R. F.** (November 2007). *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)
27. **Chen, Y.-H.** (October, 2005). 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.
28. Gorin, J. S., Thompson, M. S., Obeidat, K., & **Chen, Y.-H**. (October 2005). *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.
29. **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.
30. **Chen, Y.-H.**, & Thompson, M. S. (October, 2004). *Confirmatory Factor Analysis of a School Self-Concept Inventory*. Presented at the annual meeting of the Arizona Educational Research Organization, Tempe, Arizona.
31. **Chen, Y.-H.** (October, 2004). 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.
32. **Chen, Y.-H.**, Lo, W.-J., & Yang, Y. (October, 2003). *Analyzing Data from Complex Large-Scale Samples*. Presented at the annual meeting of the Arizona Educational Research Organization, Tempe, Arizona.
33. Rivera, R., Yang, Y., **Chen, Y.-H.**, & Green, S. B. (October, 2003). *Evaluation of Student Ratings of College Instruction: A Case Study*. Presented at the annual meeting of the Arizona Educational Research Organization, Tempe, Arizona.
34. Stockford, S., Lo, W.-J., **Chen, Y.-H.**, Thompson, M. S., Green, S. B., & Yu, C. H. (October, 2001). *Confronting the statistical assumptions: New alternatives for comparing groups*. Presented at the annual meeting of the Arizona Educational Research Organization, Tempe, Arizona.

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

1. **Chen, Y.-H.** (2018 July). *Can CTT provide valid diagnostic profiles as CDM: An evaluation of the van Hiele Geometry Test.* Invited Presentation in the Research Center for Testing and Assessment at the National Academy for Educational Research (NAER), New Taipei, Taiwan.
2. **Chen, Y.-H.** (2015 May). *Test development: Item writing rules and validation process*. Invited Presentation at the meeting of MSP workshop. Tampa, Florida.
3. **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.
4. **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.
5. **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.
6. **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.
7. **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.
8. **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.
9. **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.
10. 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.

## **Publications in Chinese**

***Chinese Journal Articles and Book Chapters***

1. **Chen, Y.-H.**, & Liu, C.-W. (1999). Effective teaching strategies: An inquiry into cognitive process of reading. *Teachers World, 102*, 78-85.
2. **Chen, Y.-H.** (1998). The application of item response theory and knowledge structure analysis to analyze sixth graders' achievement on social study*.* In Wu, C.-S. (ed.), *Graduate Students' Memorial Theses* (pp. 32-41). Graduate Institute of Elementary Education, Taipei Municipal Teachers College.
3. **Chen, Y.-H.** (1997). An exploration of teacher criticism. *Education Research & Information, 4(5)*, 74-88.
4. **Chen, Y.-H.** (1994). Influence of reading strategies on text learning. *Education Data Digest, 192,* 171-182.
5. **Chen, Y.-H.** et al. (1994). *Reference manuals of teaching and evaluation of elementary schools.* Taipei: Taipei Municipal Education Bureau Press.
6. **Chen, Y.-H.** (1993). Causal comparative research. In Wu, C.-S. (eds.), *Research methods in education* (pp139-154). Graduate Institute of Elementary Education, Taipei Municipal Teachers College.

## **Project Reports**

1. Chang, G., **Chen, Y.- H**., Chen, C. Y., & Jang, M. C. (1999). *Relationship of teacher criticism to students' self-concept in elementary schools*. Research Report, NSC87-2413-H-133-008. Taipei, Taiwan: National Science Council.
2. Dan, C.-W., Tang, M.-Y**., Chen, Yi-Hsin**, & Liu, C.-W. (1998), *Human rights protection and education: An exploration of human rights education in elementary schools*. Research Report, NSC87-2413-H-133-006-F11. Taipei, Taiwan: National Science Council.
3. **Chen, Y.-H.** (1991). An exploration of teachers’ college students' sub-culture*.* In Wu, C.-S. (ed.), *Students' memorial essays* (pp195-213). Taipei: Department of Elementary Education, Taipei Municipal Teachers College.

# GRANTS AND PROJECTS

# *Grant Proposals Pending*

1. Dr. Lee, Chanyoung (PI), Jang, Siwon (Co-PI), **Chen, Yi-Hsin** (Psychometrician; Efforts: 230 hours for Phases 1 and 2) & Wright, Savana (Administrator). (Submitted, 2/11/2019). Project Title: *Update and Redesign of Florida Class E Knowledge Exam and Florida Driver’s Handbook*. Sponsor: Florida Department of Highway Safety and Motor Vehicles. Total request amount: U.S. $446,293.
2. **Chen, Yi-Hsin** (Statistical Consultant; Efforts: 100 hours in Year 5; $5,000) (PI: Dr. Hu, Yujie). (Submitted, 7/19/2021). Grant Title: CAREER: Leveraging Geographic Science and Network Science to Develop Novel Models of Health Service Delivery and Decision-Making. Period covered: 5/1/2022 – 4/30/2027; Total request amount: US $499,999.
3. **Chen, Yi-Hsin** (Co-PI; Efforts) (PI: Dr. John Licato; Co-PI: Dr. Elizabeth Hadley, Co-PI: Dr. Robert Dedrick); (submitted, 10/18/2021). Grant Title: Modeling Zones of Proximal Development for Children’s Language Learning; Period covered: 1/2022-12/2024; Total request amount: US$850,000.

# *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 hour a semester)

# *Internal Grants Funded*

1. **Chen, Yi-hsin (PI).** (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. U.S. $4,000.
2. **Chen, Yi-hsin (PI).** (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. 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.

***Grants Submitted: Not Funded***

1. **Chen, Yi-Hsin** (Co-PI; Percent Effort: 30% - summer, 10% - 9 month for Years 2021 -2023) (Dr. Jennifer Bugos as PI; Drs Claude Alain and Shayna Rosebuam as Co-PIs) (Submitted; 2021, January 30). Project Title: Pattern Separation Underlying Auditory Sensorimotor Integration. Sponsor: National Science Foundation. Period covered: 07/01/21 - 06/30/23. Total request amount: US $ 415,280.
2. **Chen, Yi-Hsin** (Co-I; Percent Effort: 5%, 13.8%, 10%, and 10% for Years 1-4, respectively) (Dr. Yi-Jui Chen as PI; Drs Jason Anthony Co-PI, and Mario Carlo as Co-I) (Submitted; 2020, August 15). Project Title: Using Cognitive Diagnostic Models to Examine Psychometric Properties, Developmental trajectories, and Cognitive Profiles of Orthographic Processing. (This study will develop a Tablet-based assessment for orthographic processing and explore the developmental trajectories and cognitive profiles of orthographic processing). Sponsor: US Department of Education, Institute of Education Sciences (IES). Period covered: 07/01/21 - 06/30/24. Total request amount: US $ 1,455,877.88.
3. **Chen, Yi-Hsin** (Faculty Consultant: 5% effort annually over 4 years) (PI: Dr. Jennifer Bugos; Co-PI: Dr. Darlene DeMarie) (Submitted; 2020, August). Project Title: A Multimodal Music Program Developed to Improve Kindergarten Math Achievement Mediated by Executive Functions. Sponsor: US Department of Education, Institute of Education Sciences (IES). Period covered: 08/01/2021 - 7/31/2025. Total request amount: US $ 1,652,756.
4. **Chen, Yi-hsin** (Senior Key Personnel) (Dr. Jason Anthony as PI and Mr. Noe Erazo as Co-PI). (Submitted; 2020, July 15). Project title: *Identification and validation of sequences of Spanish verb tense acquisition*. Sponsor: National Science Foundation, Division of Behavioral and Cognitive Sciences, Linguistics Program: Doctoral Dissertation Research Improvement Award (Ling-DDRI). Period covered: 1/1/2021-12/30/2021. Total request amount: US$17,940.

# Chen, Y.-H. (PI; 2018). Project Title: *Developing Diagnostic Assessments with Remedial instruction System (DARIS)*. USF Nexus Initiative (UNI) Award. Total request amount: U.S. $9,750.

# Chen, Y.-H. (co-PI; Dr. Jeff Kromrey, PI, Professor of the Educational Measurement and Research department). (2010 September). Project title: *Fraction Assessment and Conceptualization for Elementary Schooling (FACES): Developing and Validating Diagnostic Items and Remedial Instruction in the conceptualization and Calculation of Fractions*. Sponsor: Institute of Education Science (IES), Education Research Grants – Mathematics Education Goal 5 (Measurement and Assessment). Total request amount: U.S. $1,582,733.

# Chen, Y.-H. (co-PI; Dr. Gerry Meisels, as PI, Director of USF's Coalition for Science Literacy). (2009, February). The proposal title was “*Assessing Science Knowledge and Cognitive Attributes of Science Teachers (ASK a CAST)*”. The proposal was resubmitted to *National Science Foundation*, Math and Science Partnerships – RETA. U.S.$1.4 million.

# Chen, Y.-H. (PI). (2009 Spring): *Fractions Skills Diagnosis of American Students’ Performance on the TIMSS-2003 Fraction Items*. Submitted to USF New Research Grant (NRG), an internal awards program for the new researcher and faculty at the University of South Florida. U.S. $5,747.

# Chen, Y.-H. (co-PI; Autar Kaw, PI, Professor of the Mechanical Engineering Department). (May 2009). *Toward Personalized CyberLearning for an Engineering Course*”. Submitted to *National Science Foundation*, the Course, Curriculum, and Laboratory Improvement (CCLI) program-Type1. $199,811.

# Chen, Y.-H. (External Evaluator/Psychometric Specialist; Dr. Jane-Jane Lo, PI, Associate Professor of the Mathematics department at the Western Michigan University). (December 2009). *Emerging Research-Pathway: Diagnosing Prospective Elementary Teachers’ Conceptual Weaknesses Critical to the Initial Development of Fraction Knowledge for Teaching*. Submitted to National Science Foundation, The Course, Curriculum, and Laboratory Improvement (CCLI) program-Type1. U.S.$199,811.

# Chen, Y.-H. (PI). (2009 Spring). *Fractions Skills Diagnosis of American Students’ Performance on the TIMSS-2003 Fractions Items*. Submitted to *USF New Researcher Grant* (NRG), an internal awards program for new researcher and faculty at the University of South Florida. U.S. $4,590.

# Chen, Y.-H. (co-PI; Dr. Jeff Kromrey, PI, Professor of the Educational Measurement and Research department). (2009 June). *Fraction Assessment and Conceptualization for Elementary Schooling (FACES): Developing and Validating Diagnostic Items and Remedial Instruction in the conceptualization and Calculation of Fractions*. Submitted to Institute of Education Science (IES), Education Research Grants – Mathematics Education Goal 5 (Measurement and Assessment). U.S. $1,582,733.

# Chen, Y.-H. (co-PI; Dr. Gerry Meisels, as PI, Director of USF's Coalition for Science Literacy). (September 2008). *Assessing Science Knowledge and Cognitive Attributes of Science Teachers (ASK a CAST)*. Submitted to *National Science Foundation*, Math and Science Partnerships – RETA. U.S.$1.4 million.

# Chen, Y.-H. (PI). (2008, Spring). *Diagnostic Assessment Mathematical Thinking Skills for American Eighth Grade Students in the TIMSS-2003*. Submitted to *USF New Research Grant* (NRG), an internal Awards Program for the New Researcher Grant (NRG) at the University of South Florida. U.S.$9,953.

# Chen, Y.-H. (PI). (2008, January,). *Developing Multimedia for the Use of IRT and Statistical Analytical Software.* Submitted to *USF Innovative Teaching Grant* (ITG), a grant for faculty creativity in teaching supported by the Center for 21st Century Teaching Excellence (C21TE) at the University of South Florida. U. S. $4,500.

# Chen, Y.-H., (PI). (2007, Spring). *An Exploration of Cognitive Skills and Knowledge behind the Mathematics Test of TIMSS-2003*. Submitted to *USF New Research Grant* (NRG), an internal awards program for the new researcher and faculty at the University of South Florida. U.S. $10,808.72.

# Chen, Y.-H. (PI). (2007, Fall). *Developing the Cognitive Model for the Fourth Grade Mathematics Test: Application of Rule-Space Methodology to TIMSS-2003*. Resubmitted to *USF New Research Grant* (NRG), an internal awards program for the new researcher and faculty at the University of South Florida. U.S. $9,500.

## **INSTRUCTION AND ADVISEMENT**

**COURSES TAUGHT (Since 2006)**

(# denotes a newly developed course; \* denotes an upgraded course)

***Measurement Courses***

\*EDF 7439: Foundations of Item Response Theory (IRT; Face-to-Face; Doctoral-level 3-hour course)

\*EDF 7469: Introduction to Computer-Based Testing (CBT; Face-to-Face; Doctoral-level 3-hour course)

#EDF 7436: Rasch Measurement Models (Rasch Models; Face-to-Face; Doctoral-level 3-hour course)

\*EDF 6432: Foundations of Measurement (Face-to-Face and Online; Master-level 3-hour courses).

***Statistics Courses***

\*EDF 6407: Statistical Analysis for Educational Research I (STATI; Face-to-Face and Online; Master/Doctoral-level 4-hour Courses)

\*EDF 7408 Statistical Analysis for Educational Research II (STATII; Face-to-Face and Online; Doctoral-level 4-hour courses)

***Efforts on Measurement Courses***

* I re-activate three doctoral-level advanced measurement courses in a face-to-face format, including Item Response Theory (IRT; EDF7439) and Computer-Based Testing (CBT; EDF7469). All teaching materials for IRT were new and self-developed. In addition, I developed a brand-new course of Rasch Measurement Models and became an official course with EDF7436 in 2013. These measurement courses are unique in the Department and College as well as even at the University. I am the only faculty member who teach these courses simultaneously at the University of South Florida.
* I re-organized the online teaching materials of the Foundations of Measurement course, a master-level course (2006-2008). I was a leader in the further development of upgrading and converting the online materials in this course (2008-2010). I devoted a lot of time and energy to collaborate with students and staff in the development of the Articulate presentation modules that incorporate voice. The course was refreshed the outdate contents in 2016.

***Efforts on Statistics Courses***

* I was a leader in the development of the online courses in statistics. I collaborated with faculty, students, and staff in the development of materials and was the instructor who offered an on-line version of STAT I and II.
* The development of these two online statistical courses involves two stages. The first stage focused on the development of statistical content with the Articulate Presenter, the E-learning software used to present the statistical content (2008-2010). Based on the developed content, the second stage added narratives with voice into the modules (2010-2012). I refreshed STAT I in 2017 by upgrading the outdated content in teaching modules.

**DOCTORAL AND MASTER COMMITTEES**

***Dissertations Completed (Role: Major or Co-Major Professor)***

1. Yue Yin (**6/4/2021**; Measurement; Major Professor).

Dissertation Title: Impacts of Model Misspecification on Individual-Level DIF Detection in Multilevel Data Using HGLM
Current Position: Graduate Research Assistant (Data Analyst) in the Rightpath Research & Innovation Center at USF

1. Ying (Jenny) Hu. (3/11/2020; Co-Major Professor with Dr. Victor Hernandez)
Dissertation Title: Male and Female Students’ Persistence in STEM Fields in Community Colleges: A Secondary Analysis of NCES BPS:12/14 Data
Current position: Professor at the Valencia College
2. Robert Fay (7/1/2018; Co-major Professor with Dr. Robert Dedrick).
Dissertation: Application of the Fusion Model for Cognitive Diagnostic Assessment with Non-diagnostic Transitions Mathematics Test Data.
Current Position: Math Instructor at the University of South Florida Saint Petersburg campus and Saint Petersburg College.
3. Chunhua Cao (2017; Co-major Professor with Dr. Eun Sook Kim)
Dissertation Title: Exploring parameter recovery of covariate interaction and effects of model misspecification in multilevel MIMIC models.
Current Position: Assistant Professor at the University of Alabama; Former Positions: Teaching Assistant Professor at the University of Arkansus;
4. Yong (Isaac) Li (4/5/2017; Co-major professor: Dr. Jeff Kromrey)
Dissertation Title: Extending the model with internal restrictions on item difficulties (MIRID) to study differential item functioning.
Current Position: Psychometrician/Statistician at the American Board of Psychiatry and Neurology, Inc. <http://abpn.com>
5. George MacDonald (11/14/2013; Co-major Professor with Dr. Jeff Kromrey)
Dissertation Title: The performance of the linear logistic test model when the Q-Matrix Is misspecified: A simulation study.
Current Position: President and Founder of The MacDonald Research Institute (TMRI) <http://guardmacdonald-research.com/aboutus.html>
6. Jecky Misieng (2013; Co-major Professor; Major Professor: Dr. Robert Dedrick)
Dissertation Title: Translation, Adaptation and Invariance Testing of the Teaching Perspectives Inventory: Comparing Faculty of Malaysia and the United States.
Current position: Senior Lecturer at the School of General Studies of the International College of Advanced Technology/Sarawak Skills Development Center (iCATS/SSDC)

***Theses or Comprehension Papers Completed (Role: Major Professor)***

1. Yu Zhang. (2019; Academic Advisor)
Comprehensive exam paper title: Examination of the Relationships among Learning Strategy, Motivation and Math Achievement for 15-year-old Students in the United States and China
Current Position: Data analyst in the hospital in China

***Dissertations Completed (Role: Committee Member)***

1. Yuejie Mandy Teng (**5/3/2021**; Industrial & Organizational Psychology; Co-advisors: Dr. Stephen Stark and Dr. Michael).
Dissertation Title:
2. Amal Barzanji (**4/26/2021**; Technology in Education and Second Language Acquisition; Co-advisors: Dr. Sara Smith and Dr. Sanghoon Park). (My role: Defense Outside Chair)
Dissertation Title: Investigating the Relationship between Informal Exposure, Vocabulary Size Level, Motivation, and the EFL Learners’ Collocational Knowledge in Saudi Arabia
3. Imelda V. Bangun (8/19/2020; Technology in Education and Second Language Acquisition; Advisor: Dr. Liontas).
Dissertation Title: Metacognitive-Motivational Profiles and Multiliteracy Skills of Adult Refugees with Limited Literacy: Explicit Metacognitive Instruction in an E-learning Environment.
4. Yanzheng Li (10/16/2020; Educational Leadership; Advisor: Dr. Zoka).
Dissertation Title: Transformational School Leadership and Students’ Gaokao Performance in China: A Multilevel Mediation Analysis
Current Position: Assistant Professor
5. Renee Alice Foran (6/17/2020; Measurement; Advisor: Dr. Robert Dedrick).
Dissertation Title: Assessing Teacher Data Use: A Validation Study of the Teacher Data Use Survey (TDUS)
Current Position: Executive manager of district assessment in the Pinellas county
6. Zhiyao Yi (6/15/2020; Measurement; Advisor: Dr. John Ferron)
Dissertation Title: Intensive Longitudinal Data Analyses and Sample Size Considerations in Intervention Studies with Dynamic Structural Equation Modeling
Current Position: Assistant Professor in the Statistics program in the School of Mathematics and Statistics at the Chongqing Technology and Business University in China
Former Position: Graduate Research Assistant in the measurement program at USF
7. Elizabeth Ashton DeCamilla (2/24/2020; Measurement; Advisor: Dr. Robert Dedrick).
Dissertation: Predictive validity of standards-based and curriculum-embedded assessments for predicting readiness at kindergarten entry.
Current Position: Program coordinator of Early Childhood Program at Pasco County
8. Yao Liu (11/14/2019; Second Language Acquisition and Instructional Technology; Advisor: )
Dissertation Title: Explore L2 Chinese Learners’ Motivation through L2MSS: Selves, Mental Imagery, and Pedagogical Implications
9. Lori Scriber (2/15/2019; Career and Workforce Education)
Dissertation Title: Peer mentoring effect on student satisfaction at two-year or less institutions
10. Josef Rill (3/5/2019; Adult and Higher Education)
Dissertation: The textbook decision: Purchasing options affecting students in the classroom.
11. Zachary Riffell (3/18/2019; Career and Workforce Education)
Dissertation Title: Skill Set Prioritization in Construction Trades Classrooms: Workforce Preparation for Craft Workers
12. Zhengjie Li (2/4/2019; Technology in Education of Second Language Acquisition; Advisor: ) (My role: Defense Outside Chair)
Dissertation Title: Promoting L2 idiomatic competence among Chinses college students via WeChat-enhanced instruction.
13. Jining Han (12/5/2014 - 4/17/2019; Second Language Acquisition and Instructional Technology)
Dissertation Title: The Effects and Students’ Views of Teachers' Coded Written Corrective Feedback: A Mixed Methods Study of Online Multiple-draft Chinese Writing
Current Position: Assistant Professor at the Southwest University in China
14. Ashley Navarro (9/11/2015 - 6/5/2019; Adult and Higher Education)
Dissertation: Adjunct faculty perceptions of factors that influence participation in faculty development opportunities at a Florida state college
15. Gloria Waite (11/1/2019; Educational Innovation; Defense Outside Chair)
Dissertation Title: An Evaluation of the Effects of the Hillsborough County Public Schools (HCPS) Principal Induction Program on Principal Performance
16. Kelly A. Pearson (11/13/2019; Higher Education Administration)
Dissertation Title: Exploring Students’ Attitudes Toward Academic Dishonesty and their Self-Reported Cheating Behaviors
Current Position: Academic Services Administrator in the College of Arts and Sciences at USF
17. Anh Kellermann (8/31/2017 - 3/20/2018; Measurement)
Dissertation Title: Missing Data in Complex Sample Surveys: Impact of Deletion and Imputation Treatments on Point and Interval Parameter Estimates.
18. Alisa Zujovic (3/30/2018; Measurement)
Dissertation Title: Predictive Validity of Florida’s Postsecondary Education Readiness Test
Current Position: Interim Director, Institutional Research & Grants at Hillsborough Community College
19. Angela Mclendon (10/12/2015 - 11/14/2018; Career and Workforce Education).
Dissertation Title: An Analysis of the Self-Perceptions of Women Leaders
20. Tony Long (4/6/2015 – 10/24/2018; Adult and Higher Education)
Dissertation: Perceived roles of academic advisors in pursuing internationalization at public state and community colleges in Florida.
21. Heather Wright (3/1/2017; Instruction Technology)
Dissertation Title: Exploring teacher assessment literacy through the process of training teachers to write assessment items
22. Julie Dudash (3/21/2017; Career and Workforce Education)
Dissertation Title: Survey of Nurses’ Attitudes toward Death, the Dying Process, and Perspectives on Related Education and Training.
23. Seang-Hwane Joo (3/24/2017; Measurement)
Dissertation Title: Robustness of Analyzing Multiple-Baseline Studies with the Within- and Between-Series Models: A Monte Carlo Study.
Current position: Psychometrician at Educational Testing Service (ETS)
24. Christopher Martinez (3/31/2017; Adult and higher Education)
Dissertation title: Learner-accessed vs. instructor-provided curriculum among undergraduate students.
Current Position: Adjunct instructor at USF St. Petersburg
25. Lisa Martino (3/31/2017; Career and Workforce Education)
Dissertation Title: The sustainability of career and technical education teacher preparation programs in Florida.
Current Position: Instructor at the University of Central Florida
26. Tyler Dean (9/22/2017; Career and Workforce Education)
Dissertation: Graduate Nursing Student Persistence to Graduation.
27. Thomas S. Szumlic (10/4/2017; Career and Workforce Education)
Dissertation: Architectural apprenticeship: A case study of exemplary practice.
28. Trevor Bernard (12/8/2017; Career and Workforce Education)
Dissertation: Environmental Perceptions to Promote Self-directed Learning in the Workplace
29. Thanh Vinh Pham (2017; Measurement)
Dissertation: The performance of multilevel structural equation modeling (MSEM) in comparison to multilevel modeling (MLM) in multilevel mediation analysis with non-normal data
Current Position: Data Analyst in the RightPath Center at USF
30. Theodore Dwyer (3/4/2016; Measurement)
Dissertation title: A comparison of educational value-added methodologies for classifying teacher effectiveness: Value tables versus covariate regression.
Current Position: Director of Assessment and Accountability at Hillsborough County
31. Meredith Bogush (10/20/2016; Career and Workforce Education)
Dissertation title: Middle School Teacher’s Perspective of Career Exploration: A Comparative Study of Magnet Schools and Public Schools.
Current Position: Program Coordinator of Tutoring Initiative Program at USF
32. Ann Joyce (11/9/2016; Adult and Higher Education)
Dissertation: Increasing Women’s Leadership Roles in Academic Orthopedic Medicine
Current Position: Orthopedic Resident and Fellowship Coordinator at USF
33. Lynsey Reys-Nickel (2016; Career and Workforce Education)
Dissertation title: Predictors of Associate’s Degree Completion in Engineering and Engineering Technologies
34. Hui-Ju Wu (1/28/2015; SLAIT)
Dissertation Title: The Effects of Blogs-supported versus traditional collaborative writing on writing performance, writing anxiety and perceptions of EFL college students in Taiwan.
Current position: Middle School English Teacher in Taiwan.
35. Laura Hauser (3/31/2015; Math Education)
Dissertation title: Students’ use of Graphing Calculator Strategies when solving function problems in Precalculus: A UCSMP study
Current Position: Assistant Professor at the University of Tampa at Tampa, FL.
36. Yiting Yu (4/15/2015; Math Education)
Dissertation title: The Influence of type of homework on opportunity to learn and students’ mathematics achievement: Examples from the University of Chicago School Mathematics Project
37. Claudia Ruiz (5/28/2015; Instructional Technology)
Dissertation Title: Job Satisfaction of Adjunct Faculty Who Teach in Standardized Online Courses
Current position: Assistant Director of Learning Design at Saint Leo University.
38. Christina Smith (6/25/2015; Vocational Education)
Dissertation: Technology literary skills needed in further education and/or work: Delphi study of high school graduates’ perspectives.
39. Stephanie Holmquist (4/3/2014; Career and Workforce) (Cited by 24)
Dissertation Title: A multi-case study of student interactions with educational robots and impact on Science, Technology, Engineering, and Math (STEM) learning and attitudes.
40. Kristin Bowles-Pierce (3/29/2013; Career and Workforce)
Dissertation Title: Do Mathematics and Reading Competencies Integrated into CTE Courses Improve High School Student State Assessment Scores?
Winner: The Omicron Tau Theta Award for Outstanding Dissertation at the Annual Meeting of the Association for Career and Technical Education Research, ACTER, on November 2014. <http://cwe-usf-news.blogspot.com/2014/11/dr-kristin-pierce-receives-award-for.html>​.
41. Bill Underwood (11/7/2013; Career and Workforce)
Dissertation Title: Examination of the Relationships of Community College Opticianry Student Outcomes with Instructional Delivery Methods and Student Age.
Current position: Professor at Hillsborough Community College.
42. E. Daniel Cox (11/14/2013; Career and Workforce)
Dissertation Title: Predictors of Student Enrollment Patterns in High School Career Academies
43. Gabriel E. Lopez Rivas (1/19/2012; Industry and Organization in Psychology)
Dissertation Title: Detection and classification of DIF types using parametric and nonparametric methods: A comparison of the IRT-likelihood ratio test, crossing-SIBTEST, and logistic regression procedures.
44. Bryce Pride (11/7/2012; Measurement)
Dissertation Title: Sensitivity of Value-Added School Effect Estimates to Different Model Specifications and Outcome Measures.
Current Position: Director of Institutional Research at the State College of Florida, Manatee-Sarasota
45. Edna Miller (4/5/2012; Higher Education)
Dissertation Title: Understanding Social Integration and Student Involvement as Factors of Self-Reported Gains for African American Undergraduate Women
46. Deborah Kindel (2/22/2011; Educational Leadership)
Dissertation Title: Teacher commitment to the implementation of ninth grade academies and their perceptions of school leadership.
47. Shengrong Cai (3/10/2011: SLAIT)
Dissertation Title: The Impact of an Online Learning Community Project on CFL Students’ Motivation.
Current Position: Associate Professor at Wright State University.
48. Gudmundur Heimisson (4/5/2011; Interdisciplinary Education)
Dissertation Title: A Cross-cultural Adaptation of the Irrational Beliefs Inventory from English to Icelandic.
Current position: Assistant professor at University of Akureyri.
49. Regina Young Hyatt (6/29/2011; Higher Education)
Dissertation Title: The influence of time spent by students studying and doing homework, co-curricular involvement, and online social.
Current Position: Dean of Student at the University of Alabama in Huntsville.
50. Jackie Speake (7/18/2011; Educational Leadership)
Dissertation Title: Evolution/Creationism Controversy: Analysis of Past and Current Policy Practice in Public Schools and How Policies
51. Angela Butler (7/23/2011; Educational Leadership)
Dissertation Title: Principals’ Content Knowledge: Examining Principals’ Reading Knowledge and Leadership Actions from Principals’ and Teachers’ Perceptions.
52. Kathi Bentley (7/19/2011; Educational Leadership)
Dissertation Title: An Investigation of Self-Perceived Principal Leadership Styles in an Era of Accountability
53. Brenda Hardman (11/7/2011; Educational Leadership)
Dissertation Title: Teachers’ perceptions of school administrator's leadership styles and the effects on student achievement in high and low performing schools.
54. Cindy Topdemir (11/4/2010; Counselor Education)
Dissertation Title: School Counselor Accountability Practices: A National Study.
Current position: Instructor in the College of Education at USF
55. Craig Collin (11/17/2010; Educational Leadership)
Dissertation Title: A Descriptive Study of Selected Participants’ Views on State-Mandated Intensive Reading in Public High Schools and its Effect on Students’ Access to Arts Courses.
56. Garron Gianopulos. (10/22/2008; Measurement)
Dissertation Title: The Robustness of Rasch True Score Preequating to Violations of Model Assumptions under Equivalent and Nonequivalent Populations.
Current Position: Psychometrician in North Carolina Department of Public Instruction.

***Theses Completed (Role: Committee Member)***

1. Yanjie Cao (5/15/2020; Measurement)
Comprehensive Exam Paper Title: Relationship between school environment and fourth-grade U.S. students’ mathematics and science achievement
2. Zeynep Merve Sapmaz (10/22/2019; Measurement)
Thesis Title: Detection of Gender-Related Differential Item Functioning (DIF) in the Mathematics Subtests in Turkey
3. Zhiyao Yi (5/31/2016; Measurement)
Comprehension Exam Paper Title: An Evaluation Proposal for “Mathematics Matters” Project.
4. Johnathan Fuentes (7/15/2010; Exercise Science)
Thesis Title: Relationship between Muscular Strength Testing to Dynamic Muscular Performance in Division 1 American Football.

***Doctoral Studies in Progress (Role: Major or Co-Major Professor)***

0. Richard Brummer (Withdrew in 2016 due to personal issues; Co-major Professor with Dr. Robert Dedrick)
Dissertation Title: Development and Initial Validation of a Group Administered Diagnostic Assessment of Reading Comprehension.

1. Mazhab Ferguson. (3/16/2016; Co-Major Professor with Dr. Robert Dedrick). Admission: Fall 2012; QE: Spring 2015;
Dissertation: No title so far.
Current Position: Assistant Program Director of the **Office of Community Engagement and Partnerships (OCEP) at USF**
2. John Michael (Major Professor). Admission: Fall 2018;
Current Position: Graduate Research Assistant in the measurement program at USF

***Doctoral Studies in Progress (Role: Committee Member)***

1. Frederick Edora (2/5/2016; Career and Workforce Education). QE: Spring 2016; Proposal: Spring 2018
Dissertation title: The Effects of Parental Involvement using an Autism Spectrum Disorder Vocational Index
Current Position: Data Manager at the South Carolina Department of Education.
2. Ke Cheng. (10/19/2018; Measurement). Admission: Fall 2016; QE: Fall 2018
Current Position: Graduate Research Assistant (Data Analyst) in the Rightpath Research & Innovation Center at USF
3. Emerson Hardy (11/8/2018; Adult and Higher Education). QE: spring 2019;
4. Walter Chason (8/23/2014; Measurement; Advisor: Dr. Eunsook Kim). Admission: 2014, Fall;
5. Dikeesha Brown (8/9/2017; Adult and Higher Education).
6. George Shannon (Music Education; Advisor: Dr. Jennifer Bugos). QE: Spring 2020**;** Proposal: **5/20/2021;**
Dissertation Title: Musical self-efficacy in performance ensembles: Differences between minority and non-minority undergraduate students
7. Jessica Krentzman (4/5/2020; Technology in Education of Second Language Acquisition; TESLA).
8. Noe Erazo (5/13/2020; Child and Family Studies; Advisor: Dr. Jason Anthony). QE: Summer 2020;
9. Yunlu Xiang (**2/7/2021**; Innovation Education; Advisor: Dr. Barbara Cruz). **QE: Summer 2021**

# PROFESSIONAL DEVELOPMENT

***Research-Related Workshops***

1. The AIR/EERA IPEDS Workshop (February 20, 2016): Three hours of instruction, entitled “*IPEDS Data and Benchmarking: Supporting Decision Making and Institutional Effectiveness*”. I learned more about high education dataset and statistical analytical approaches.
2. SESUG 2015 preconference 3-hour workshop (September 27, 2015): *Making the Most of Your Statistical Analysis with SAS® Programming and the Output Delivery System.* Hosted by the SouthEast SAS Users Group.
3. NCME One-Day Training Session (One day; 2011 April): “*Bayesian networks in educational assessment*”. Hosted by the National Council on Measurement in Education (NCME), New Orleans, Louisiana.
4. NCME a Half-Day Training Session (a half-day; 2009 April): “*Skills Diagnosis with Latent Variable Models*”. Hosted by the National Council on Measurement in Education (NCME), San Diego, California.
5. NCME One-Day Training Session (One day; 2007 April): *A Hands-on Introduction to Latent Class Models, Mixture Rasch Models and Diagnostic Mixture Models*. Hosted by the National Council on Measurement in Education (NCME) in Chicago.
6. Research Methods Workshop (3 hours; 2007 January): *Meta-Analysis: A Gentle Introduction to Research Synthesis*. Hosted by the department of Educational Measurement and Research in the College of Education at University of South Florida. <http://www.coedu.usf.edu/main/departments/me/Workshops.html>
7. Item Bias Seminar(3 hours; 2007 February) hosted by Linking Academic Scholars to Educational Resources (LASER).
8. Scaling, Linking and Equating of Test Scores Seminar(3 hours; 2007 October). Hosted by University Center for Business at University of South Florida.
9. The 2008 Summer Grant Proposal Writing Workshops (A week; 5/21/2008 to 5/30/2008).
10. Community of Science (COS) Funding Workshop (2 hours; 2006 October). Hosted by the College of Education at University of South Florida. The goal of this workshop is to prevent researchers from wasting time searching blind gain the tools to find the funding.

***Teaching-Related Workshops***

1. Attended Phase III Reunion (4/25/2008) of Enhancing Teaching and Learning with Technology Seminar (July 23- 27, 2007) hosted by the Center for 21st Century Teaching Excellence at University of South Florida.
2. Scientific Review of the IRB application (4/24/2008) for the doctoral student of Freda Watson. The study title: Shyness in the context of reduced fear of negative evaluation and self-focus: A mixed methods case study.
3. Policy Change Workshop (4/16/2008). Graduate Studies presents a NEW Graduate Process Orientation Workshop. This workshop will feature information about recent and upcoming changes in policies regarding admission, transfer and non-degree coursework, incomplete grades, and other areas. (Service)
4. COEDU Research Summit (3/7/2008): *Enhancing the Research Culture*. Hosted by the College of Education at University of South Florida. **This is a half-day event designed to advance faculty research in the areas of publishing and grant development.**
5. Active Learning with High or Low Technology Workshop (2/21/2008). Hosted by the Center for 21st Century Teaching Excellence at University of South Florida. This workshop provided sources regarding what kinds of online software are available from book publishers so that students can experience videos, interactive tutorials, flash cards, gap testing, and other activities with minimum technical skills required of instructors.
6. Enhancing Teaching and Learning with Technology Seminar (7/23/2007- 7/27/2007): One-week course. Hosted by the Center for 21st Century Teaching Excellence at University of South Florida.
7. Interactive Session using Elluminate live Workshop (2007 March). Hosted by Florida Center for Instructional Technology. This session introduced participants to most of the interactive features of Elluminate Live! <http://fcit.usf.edu/default.htm>
8. Podcast Workshop (2007 February) hosted by Florida Center for Instructional Technology. Learn all about your iPod: how to transfer audio and video, how to record audio with it, Notes and other features, basic troubleshooting. <http://fcit.usf.edu/default.htm>

# PROFESSIONAL SERVICES

*Program Service*

* Member: Tenure-tracking Assistant Professor Search Committee (measurement) (9/1/2018 -5/31/2019; Chair: Dr. Robert Dedrick)
* Member: Instructor Search Committee (measurement) (9/1/2018 - 5/31/2019; Chair: Dr. Robert Dedrick)
* Member: Visiting Assistant Professor Search Committee (measurement) (8/7/2017-7/31/2018; Chair: Dr. Eun Sook Kim)
* Member: Doctoral Student Admission Committee Member (2/1/2017–Present)
* Coordinator: The Hough Family Measurement Computer Lab (8/7/2016 - 8/6/2019)
* Supervisor: The Hough Family Measurement Computer Lab (8/7/2016 – 8/6/2019)
* Member: Assistant Professor Search Committee (measurement program) (9/1/2010 – 5/1/2011)

*Department Service*

* Chair: The Department Instructor Annual Review Committee (8/7/2020-5/31/2021)
* Member: The Departmental Annual Review Committee (8/7/2017–5/31/2019)
* Member: The Department Award Committee (8/7/2017–5/31/2019)
* Chair: The Department Faculty and Staff Campaign (9/1/2016 – Present)
* Coordinator: The Hough Family Measurement Computer Lab (2010-2012)
* Supervisor: The Hough Family Measurement Computer Lab (2010-2012)
* Facilitator: Purchasing and obtaining IRT software and Installing in the Measurement Computer Lab (September 2006 – July 2014).
* Co-leader of the Online Statistics Course Development Team (Since 2007 – 2012): Department converted two face-to-face statistics courses to online version courses, including EDF6407 (Statistics for Educational Research I) and EDF7408 (Statistics for Educational Research II).
* Leader of the Foundations of Measurement (EDF6432) Course Developing Team (01/2008 – 09/2010): Revised and developed the versions of the Foundations of Measurement course for a diverse of population students in the College of Education at the University of South Florida.
* Facilitator of Saturday Research Group (SRG; 09/2007 – 05/2008): In the Department of Educational Measurement and Research.
* Advisor of The MOSTI project (01/2007 – 01/ 2008): In the Center for Research, Evaluation, Assessment, and Measurement (CREAM).
* Lecturer of the Saturday Research Group (2008, January): The lecture title was “*Large-Scale Educational Data Sources*”. Hosted by the Department of Educational Measurement and Research at University of South Florida.
* Member: Department Website Improvement Committee (08/2006–12/2008): In the Department of Educational Measurement of Research.
* Member: Student Recruitment Committee (2007–2012): In the Department of Educational Measurement and Research.

*College Service*

* Member of the college-wise Award Committee for Raymond Urbanek Fellowship in Education(2021-2022)
* Member: Ad Hoc College “University Graduate Fellowship (UGF)” Selection Committee (1/1/2018 - 5/31/2018)
* Member of Graduate Programs Committee (GPC) (8/7/2012–5/31/2014)
* Member: Assistant Professor Search Committee (Math Education program) (9/1/2011 – 5/1/2012)
* Member of Technology Committee (Technology Action Group, TAG) (9/1/2006–5/1/2012)
Special contribution: developing a survey for the TAG research
* Invited Lecturer: Research Methods Workshop (26 January 2007). Invited by the Department of Educational Measurement and Research at University of South Florida. The lecture title was *“Rule-Space Methodology: Constructing More Useful Information from Test Performance”*. <http://www.coedu.usf.edu/main/departments/me/Workshops.html>

*University Service*

* Member (9/1/2019 – 5/1/2022): The Publication Council Committee (Tasks: Review the applications regarding the journal articles that need to pay Article Processing Charge)
* Representative (9/1/2018 – 5/1/2021): USF Faculty Senator (Tasks: Voice and communicate issues and concerns for our College and Department)
* Member (9/1/2018 – 5/1/2021): The Committee on Committees (COC) (Tasks: review the candidates’ application materials and select the best candidates for the university-wise committees)
* Research Judge: The Annual Graduate Student and Postdoctoral Scholar Research Symposium at USF (2014-2017, 2020, 2021)
* Consultation Provider for helping recruit a faculty outside of College (2015): The Search Committee for recruiting the program Director of the Rehabilitation and Mental Health Counseling (RMHC) program in the College of Behavioral and Community Sciences
* Grant Proposal Reviewer: The Innovative Teaching Grant in the 21st Teaching excellent Center (February 2009).

*State, National, and International Service*

1. Conference Proposal Reviewer: The international/national and regional/local Conferences

 (a) AERA National Conference (American Educational Research Association)

1. Division D-Measurement and Research Methodology: Section 1-Educational Measurement, Psychometrics, and Assessment (2012, 2016, 2017, 2018, 2019)

2. SIG (Special Interest Group): Structural Equation Modeling (2006-2010)

3. SIG (Special Interest Group): Cognition and Assessment (2012-2019)

4. SIG (Special Interest Group): Rasch models (2019)

 (b) NCME national conference (National Council on Measurement in Education) (2006-2014, 2018, 2019)

 (c) CAERDA International Conference (Chinese American Educational Research and Development Association; 2006-2012, 2015)

 (d) FERA Regional Conference (Florida Educational Research Association; 2006-2015; 2018)

2. Services at the Conferences (FERA, SESUG, AERA, NCME, and CAERDA)

* Chairs (2021): Paper Session and Poster Session at the AERA virtual meeting
* Coordinator (2015, 9/27-29): Paper Session at the SouthEast SAS Users Group (SESUG) Conference
* Facilitator (2015, 6/24-26): Paper Session at the International Annual Meeting of the Chinese American Educational Research and Development Association (CAERDA)
* Chair and Discussant (2011): Paper Session at the International Annual Meeting of the Chinese American Educational Research and Development Association (CAERDA)
* Chair (2009, 2010): “FERA Distinguished Paper Award” Committee
* Member (2019): “FERA Educational Researcher of the Year Award” Committee (Chair: Dr. Yanyun Yang at FSU)
* Member (2016, 2018): FERA Distinguished Paper Award Committee (Chaired by Dr. Robert Dedrick at USF in 2016; Chaired by Dr. Yanyun Yang at FSU in 2018)
* FERA Panelist (2015): “ABCs for U’s and D’s: Achieving Better Collaborations between Universities and Districts” (Organizer by Dr. Betsy Jane Becker, FSU).
* FERA Panelist (2008): “Meet the Experts” Session for graduate students at FERA (2008).
* Discussant (2009, 2011): “Graduate Student Poster Session” at the NCME conference
* Member (2010): Outstanding Dissertation Award Committee for the “Cognition and Assessment” AERA SIG (Chaired by Dr. Joanna Gorin)

3. Journal Editor, Article Editor, Board Member, and Reviewer

(a) Editor:

1. The International Journal of Educational and Psychological Assessment (2013-2014) <https://sites.google.com/site/tijepa2012/editorial-board>

(b) Article Editor (AE):

1. SAGE Open (2019, 2020)

(c) Editorial Board Member (5 Journals)

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

(d) Invited Journal Reviewer (32 Journals)

1. Asia Pacific Journal of Education (APJE; 2010)
2. Applied Psychological Measurement (APM; 2019, 2020)
3. British Journal of Mathematical and Statistical Psychology (2014, 2018)
4. Behavior Research Method (2014, 2018, 2021)
5. Cogent Education (2015, 2018)
6. Cogent Psychology (2020)
7. Canadian Social Science (CSS; 2012)
8. Educational Measurement: Issues and Practice (EMIP; 2010, 2011)
9. Educational and Psychological Measurement (EPM; 2018, 2020-**2021**)
10. Educational Psychology (EP; 2019)
11. Educational Policy (2018, 2021)
12. Educational Studies in Mathematics (2020)
13. Frontiers in Education (2018)
14. International Journal of Information and Educational Technology (**2021**)
15. International Journal of Knowledge and Learning (IJKL; 2019, 2020)
16. International Journal of Quantitative Research in Education (IJQRE; 2016, 2019)
17. International Journal of School and Educational Psychology (USEP; 2017-**2021**)
18. International Journal of Testing (IJT; 2008, 2010 – 2017, 2020)
19. Journal of Applied Measurement (JAM; **2021**)
20. Journal of Language and Education (2020)
21. Journal of Cross-Cultural Psychology (JCCP; 2013)
22. Journal of Psychoeducational Assessment (JPA; 2014, 2015)
23. Journal of Educational Measurement (JEM; 2014, 2019)
24. Journal of Statistical Software (JSS; 2014)
25. Journal of Experimental Education (JXE; Since 2007-2021)
26. Journal of Modern Applied Statistical Methods (JMASM; 2017, 2018)
27. Measurement: Interdisciplinary Research and Perspectives (2015, 2018-2021)
28. Nordic Psychology (2016)
29. PLoS ONE (2014, 2015, 2016, 2018-**2021**)
30. Scandinavian Journal of Educational Research (2018)
31. Sage Open (SO; 2019-**2021**)
32. The International Journal of Educational and Psychological Assessment (TIJEPA; 2010 - 2013)

4. Invited Book Manuscript Reviewer: (2010, 2015, 2019)

* + Expert reviewer (2020). A proposal for new QASS volume, "*Evaluating Rating Scale Functioning for Survey Research*". Los Angeles, California: SAGE Publishing
	+ Expert Reviewer (2019): A book manuscript entitled “*Rasch models for solving measurement problems*” by George Engelhard, Jr. and Jue Wang. Los Angeles, California: SAGE Publishing
	+ Expert Reviewer (2015): Third Edition Revision of a book manuscript entitled “*Applying the Rasch Model: Fundamental Measurement in the Human Sciences*” by Bond and Fox (2015).
	+ Expert Reviewer (2010): A book manuscript entitled “*Diagnostic measurement: Theory, methods, and applications*” by Rupp, A. A., Templin, J., & Henson, R. J.New York: The Guilford Press. (2010)
	<https://www.guilford.com/books/Diagnostic-Measurement/Rupp-Templin-Henson/9781606235270/reviews>

5. Invited External Reviewer/Examiner:

* The Canada Research Chair (CRC) nomination of the candidate who has been submitted by University of Alberta for a Renewal, Tier 1 Canada Research Chair in Educational Measurement (2020)
* A Grant Proposal for National Science Foundation (NSF) (2018)
* External examiner for the Ph.D. dissertation (Advisor: Dr. Amery Wu; University of British Columbia; 2021)

6. Statistics and Measurement Consultant: Ultimate Medical Academy (UMA; 10/1/2011- 5/31/2012)

7. Mentor for Future Faculty Program (08/2006 – 07/2007)

A doctoral student Wen-Juo Lo, who attended the Preparing Future Faculty Program at Arizona State University, Tempe Campus. He is currently an associate professor at the University of Arkansas. The goal of the program is to help better prepare future faculty in the areas of teaching, research, and service (the letter and certificate are attached in this document)

# *Professional Memberships*

* American Educational Research Association (AERA; 2002 - Present)
* National Council on Measurement Education (NCME; 2005 - Present)
* Florida Educational Research Association (FERA; 2006 - Present)
* Chinese American Educational Research and Development Association (CAERDA; 2005 -Present)
* Arizona Educational Research Organization (AERO; 2002 - 2006)