

PUI-WA LEI

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Updated: August 2016
Graduate Faculty Member

Education

PhD	2001	The University of Iowa	Educational Measurement and Statistics
MS	1997	The University of Iowa	Educational Measurement and Statistics
BS	1994	Bemidji State University	Applied Psychology
BA	1994	Bemidji State University	Psychology

Professional Experience

2016-present	Professor of Education (Educational Psychology), Penn State, University Park, PA.
2008-16	Associate Professor of Education (Educational Psychology), Penn State, University Park, PA.
2002-08	Assistant Professor of Education (Educational Psychology), Penn State, University Park, PA.
2001-02	Postdoctoral Research Scholar, Iowa Testing Programs, University of Iowa, Iowa City, IA.
2000	Intern, American College Testing, Inc., Iowa City, IA.
1997-01	Research Assistant, Iowa Testing Programs, University of Iowa, Iowa City, IA.
1996-97	Teaching Assistant, University of Iowa, Iowa City, IA.

Honors/Awards

Fulbright Scholar Grantee, Fulbright Foreign Scholarship Board and the U.S. Department of State, 2009-2010
Honorary Associate Professor, Faculty of Education, The University of Hong Kong, 01/2010-05/10
Blommers-Hieronymus-Feldt Fellowship, College of Education, University of Iowa, 1998-00
Scholarship from Macau Foundation, 1995-00
Scholarship from Bemidji State University and Macau Education Department, 1991-94
Outstanding Senior in Applied Psychology, Bemidji State University, 1994

Professional Activities

Editorial Board member, Journal of Educational Psychology, 2016 – present
Associate Editor, Journal of Educational Psychology, 2014 – 2015
Member, Monitoring and Assessment Panel of Theme-based Research Scheme, Research Grants Council of Hong Kong, 2016-present
Member, Humanities and Social Sciences Panel, Research Grants Council of Hong Kong, 2011-present
Program co-chair, APA Division 15, 2016-2017
Member, APA Division 15 Graduate Student Poster Award Committee, 2016
External referee for promotion, School of Medicine, University of Pittsburgh, 2015
Treasurer, AERA SEM SIG, 2011-2013
Member, AERA Division D Early Career Award Committee, 2011-2012
Member, AERA Division D Dissertation Award Committee, 2008-2010
Member, Membership committee, National Council on Measurement in Education, 2008-2010
Research Advisor, the UCLID Center of the University of Pittsburgh at the Children's Hospital of Pittsburgh Child Development Unit, 2004 – 2010
Advisory Editor, Journal of Educational Measurement, 2008 – 2010
Contributing Editor, American Journal of Education, 2004 – 2012
Reviewer, Journal of Educational Psychology, 2005 – 2013
Reviewer, Journal of General Internal Medicine, 2005 – present
Reviewer, Journal of Educational Measurement, 2004 – 2008, 2013 – 2015
Reviewer, Applied Psychological Measurement, 2008, 2009, 2011 – 2016
Guest reviewer, Psychological Methods, 2004, 2014-2015
Guest reviewer, Methodology, 2013-2014
Guest reviewer, International Journal of Quantitative Research in Education, 2012, 2013

Guest reviewer, *Journal of Experimental Education*, 2003, 2005, 2006, 2012, 2013
 Guest reviewer, Research Grant Council of Hong Kong, 2011 – 2014
 Guest reviewer, *Educational and Psychological Measurement*, 2007, 2008, 2012
 Guest reviewer, *Behavior Research Methods*, 2006-2008, 2011
 Guest reviewer, *Journal of American Statistical Association*, 2009-2010
 Guest reviewer, *The American Journal of Distance Education*, 2009
 Guest reviewer, *Science Education*, 2006, 2009
 Guest reviewer, *Journal for Research in Mathematics Education*, 2008
 Guest reviewer, *Statistics in Medicine*, 2007
 Guest reviewer, *the Spanish Journal of Psychology*, 2006, 2008
 Guest reviewer, *The KEDI Journal of Educational Policy* (Special Issue on Consequences of high-stakes testing: An international perspective), 2006
 Guest reviewer, *Contemporary Educational Psychology* (the Special Issue on Applications of Advanced Latent Variable Modeling in Educational Psychology Research), 2005
 Guest reviewer, *Advances in Health Sciences Education*, 2005
 Guest reviewer, *Neural Networks*, 2004
 Discussant, the Annual Meeting of the National Council on Measurement in Education, 2015
 Moderator, the Annual Meeting of the National Council on Measurement in Education, 2015
 Reviewer, AERA Division D In-Progress Graduate Research Gala, 2010-2011
 Reviewer, the Annual Meeting of the American Educational Research Association (Division D1), 2006-2008
 Reviewer, the Annual Meeting of the American Educational Research Association (SEM SIG), 2005-2008, 2011-12
 Session chair, the Annual Meeting of the American Educational Research Association (SEM SIG), 2005, 2007
 Reviewer, the Annual Meeting of the National Council on Measurement in Education, 2005, 2007, 2008
 Reviewer, the Annual Meeting of the American Educational Research Association (Division D2), 2002, 2005, 2006

Invited presentation:

Introducing the development of the CEPS cognitive ability scores. Invited presentation at the China Education Panel Study (CEPS) working and user group meeting, Renmin University, Beijing, China. July, 2015.

Effects of Medium of Instruction: Findings from the Hong Kong TIMSS Grade 8 Mathematics data. Invited presentation as part of the Fulbright experience to the Faculty of Education, The University of Hong Kong, Hong Kong. May, 2010.

Effects of Vertical Scaling Methods on Linear Growth Estimation. Invited presentation at the Hong Kong Institute of Education, Hong Kong. May, 2010.

Innovations in Web-Based Learning Technologies – Intelligent Tutoring and Multi-Media Games to Improve Reading Comprehension and Motivation (with Kausalai Wijekumar). Invited presentation at the University of Hong Kong, Hong Kong. May, 2010.

American Education - Studying in the U.S.: Campus Life and Beyond. Invited lecture as part of the Fulbright lecture series in American Identities, United International College, Zhuhai, China. April, 2010.

Community-based research: Statistical tools and results (with Hoi K. Suen). Invited presentation as part of the Dialogue Series of the UCLID Center at the University of Pittsburgh, Pittsburgh, PA. April & September, 2004.

Structural Equation Modeling: An Introduction for the School Psychologists. Invited presentation at the 38th annual Pennsylvania school psychologists conference and professional development workshops. October, 2004.

Consulting

Development of a cognitive ability test for junior high school students in China, Johns Hopkins University, Spring 2014 - present

The Legacy Together strengthening afterschool programs, Penn State, Fall 2013-Spring 2014

The Utah STEM Action Center Pilot Evaluation, the Active Learning Lab, Utah State University, 12/2013-4/2014

Connected Math 2 for the Mid-Atlantic Regional Educational Lab at Penn State, Fall 2009 – Fall 2011

The STEM project for the Mid-Atlantic Regional Educational Lab at Penn State, Summer 2009

The Rural Distance Learning and Technology Project for the National Research Center on Rural Education Support (NRCRES, funded project), Fall 2006 – Summer 2011
 Odyssey Math for the Mid-Atlantic Regional Educational Lab at Penn State (funded project), Fall 2006 – Fall 2010
 Evaluation project (funded) for Lancaster Lebanon Intermediate Unit 13, Community Education, Fall 2006 – Fall 2008
 Cognitive Tutor (Moore, OK) HLM analysis for Carnegie Learning, Inc., Summer 2006
 County uninsured rate estimation for the PROBE Lab in Tennessee, Summer 2005
 Post-Traumatic Stress Clinical Team, Veterans Affairs Medical Center, Iowa City, IA, 2001-02
 Developmental Psychology, Department of Psychology, University of Iowa, 2001-02
 University of Iowa and other institutions, dissertation designs, data analyses and result interpretation, 1996-02

Professional Associations

American Psychological Association (APA) Division 15, 2016-present
 American Psychological Association (APA) Division 5, 2007-2008
 Northeastern Educational Research Association (NERA), 2006-2007
 National Council on Measurement in Education (NCME), 2000-present
 American Educational Research Association (AERA), 2000-present
 SIG: Structural Equation Modeling, 2004-present

Publications

Refereed Journals

- Sandilos, L. E., Shervey, S. W., DiPerna, J. C., **Lei, P.-W.**, & Cheng, W. (in press). Structural Validity of CLASS K-3 in Primary Grades: Testing Alternative Models. *School Psychology Quarterly*. DOI: 10.1037/spq0000155
- Guchait, P., Pasamehmetoglu, A., Tracey, B., Cunningham, C.J.L., & **Lei, P.-W.** (in press). The moderating effect of supervisor and coworker support for error management on service recovery performance and helping behaviors. *Journal of Service Theory and Practice*.
- Cheng, W., **Lei, P.-W.**, & DiPerna, J. C. (in press). An Examination of Construct Validity for the EARLI Numeracy Skill Measures. *Journal of Experimental Education*. DOI:10.1080/00220973.2015.1101532
- Lei, P.-W.** & Li, H. (2016). Performance of fit indices in choosing correct cognitive diagnostic models and Q-matrices. *Applied Psychological Measurement*, 40(6), 405-417. DOI: 10.1177/0146621616647954
- Li, H., Hunter, C.V., & **Lei, P.-W.** (2016). The Selection of Cognitive Diagnostic Models for a Reading Comprehension Test. *Language Testing*, 33(3), 391-409. DOI: 10.1177/0265532215590848
- Anthony, C. J., DiPerna, J. C., & **Lei, P.-W.** (2016). Maximizing Measurement Efficiency of Behavior Rating Scales Using Item Response Theory: An Example with the Social Skills Improvement System - Teacher Rating Scale. *Journal of School Psychology*, 55, 57-69. DOI: 10.1016/j.jsp.2015.12.005
- DiPerna, J. C., **Lei, P.-W.**, Bellinger, J., & Cheng, W. (2016). Effects of a Universal Positive Classroom Behavior Program on Student Learning. *Psychology in the Schools*, 53(2), 189-203. DOI:10.1002/pits.21891
- Guchait, P., **Lei, P.-W.**, & Tews, M. (2016). Making teamwork work: Team knowledge for team effectiveness. *The Journal of Psychology: Interdisciplinary and Applied*, 150(3), 300-317. DOI: 10.1080/00223980.2015.1024596
- Wu, Q., **Lei, P.-W.**, DiPerna, J. C., Morgan, P. L., & Reid, E. E. (2015). Identifying Differences in Early Numeracy Skills among Children in Head Start. *International Journal of Science and Mathematics Education*, 13(6), 1403-1423. doi: 10.1007/s10763-014-9552-y
- DiPerna, J. C., **Lei, P.-W.**, Bellinger, J., & Cheng, W. (2015). Efficacy of the Social Skills Improvement System Classwide Intervention Program (SSIS-CIP) Primary Version. *School Psychology Quarterly*, 30(1), 123-141. <http://dx.doi.org/10.1037/spq0000079>

- Norwalk, K. E., DiPerna, J. C., & **Lei, P.-W.** (2014). Confirmatory Factor Analysis of the Early Arithmetic, Reading, and Learning Indicators (EARLI). *Journal of School Psychology, 52*(1), 83-96. <http://dx.doi.org/10.1016/j.jsp.2013.11.006>
- Chen, S.-Y., **Lei, P.-W.**, Chen, J.-H., & Liu T.-C. (2014). General test overlap control: Improved algorithm for CAT and CCT. *Applied Psychological Measurement, 33*(3), 229-244. doi: 10.1177/0146621613513494
- Wijekumar, K., Meyer, B.J.F., **Lei, P.-W.**, Lin, Y., Johnson, L.A., Spielvogel, J., Shurmatz, K., Ray, M., & Cook, M. (2014). Multisite randomized controlled trial examining intelligent tutoring of structure strategy for 5th-grade readers. *Journal of Research on Educational Effectiveness, 7*(4), 331-357. doi:10.1080/19345747.2013.853333
- Namasivayam, K., Guchait, P., & **Lei, P.-W.** (2014). The influence of leader empowering behaviors and employee psychological empowerment on customer satisfaction. *International Journal of Contemporary Hospitality Management, 26* (1), 69-84. doi: 10.1108/IJCHM-11-2012-0218
- Wijekumar, K., Meyer, B.J.F., **Lei, P.-W.** (2013). High-fidelity implementation of web-based intelligent tutoring system improves fourth and fifth graders content area reading comprehension. *Computers & Education, 68*, 366-379. <http://dx.doi.org/10.1016/j.compedu.2013.05.021>
- Li, H., **Lei, P.-W.**, & Pace, C. L. (2013). Reading Subskill Differences between Students in Shanghai-China and the U.S.: Evidence from PISA 2009. *Educational Research and Evaluation, 19*(6), 490-509. <http://dx.doi.org/10.1080/13803611.2013.803439>
- Lei, P.-W.**, & Li, H. (2013). Small Sample DIF Estimation Using SIBTEST, Cochran's Z, and Log-Linear Smoothing. *Applied Psychological Measurement, 37*(5), 397-416. doi:10.1177/0146621613478150
- Locke, B. D., McAleavey, A. A., Zhao, Y., **Lei, P.-W.**, Hayes, J. A., Castonguay, L. G., Li, H., Tate, R., & Lin, Y.-C. (2012). Development and initial validation of the Counseling Center Assessment of Psychological Symptoms-34. *Measurement and Evaluation in Counseling and Development, 45*(3), 151-169. doi: 10.1177/0748175611432642.
- Lei, P.-W.**, & Zhao, Y. (2012). Effects of vertical scaling methods on linear growth estimation. *Applied Psychological Measurement, 36*(1), 21-39. doi: 10.1177/0146621611425171
- Norwalk, K. E., DiPerna, J. C., **Lei, P.-W.**, & Wu, Q. (2012). Examining early literacy skill differences among children in Head Start via latent profile analysis. *School Psychology Quarterly, 27*(3), 170-183. doi: 10.1037/spq0000003
- Wijekumar, K., Meyer, B.J.F., **Lei, P.-W.** (2012). Large-scale randomized controlled trial with 4th graders using intelligent tutoring of the structure strategy to improve nonfiction reading comprehension. *Educational Technology Research and Development, 60*, 987-1013. doi: 10.1007/s11423-012-9263-4
- Locke, B. D., Buzolitz, J. S., **Lei, P.-W.**, Boswell, J. F., McAleavey, A. A., Sevig, T. D., Dowis, J. D., & Hayes, J. A. (2011). Development of the Counseling Center Assessment of Psychological Symptoms-62 (CCAPS-62). *Journal of Counseling Psychology, 58*(1), 97-109. doi: 10.1037/a0021282.
- Hochstedt, K.S., **Lei, P.-W.**, DiPerna, J.C., & Morgan, P.L. (2011). Examining the dimensionality of EARLI literacy skill scores using nonlinear factor analysis. *Journal of Psychoeducational Assessment, 29*(5), 395-406. doi:10.1177/0734282910384930
- Guchait, P., Namasivayam, K., & **Lei, P.-W.** (2011). Knowledge Management in Service Encounters: Impact on Customers' Satisfaction Evaluations. *Journal of Knowledge Management, 15*(3), 513-527. doi: 10.1108/13673271111137466

- Chen, S.-Y. & **Lei, P.-W.** (2010). Investigating the relationship between item exposure and test overlap: Item sharing and item pooling. *British Journal of Mathematical and Statistical Psychology*, *63*, 205-226. doi:10.1348/000711009X430906
- Meyer, B.J.F., Wijekumar, K., Middlemiss, W., Higley, K., **Lei, P.-W.**, Meier, C., & Spielvogel, J. (2010). Web-based tutoring of the structure strategy with or without elaborated feedback or choice for fifth- and seventh-grade readers. *Reading Research Quarterly*, *45*(1), 62-92. dx.doi.org/10.1598/RRQ.45.1.4
- Lei, P.-W.**, Wu, Q., DiPerna, J. C., & Morgan, P. L. (2009). Developing short forms of the EARLI numeracy measures: Comparison of item selection methods. *Educational and Psychological Measurement*, *69*(5), 825-842. doi: 10.1177/0013164409332215
- Lei, P.-W.** (2009). Evaluating estimation methods for ordinal data in structural equation modeling. *Quality & Quantity*, *43*(3), 495-507. doi: 10.1007/s11135-007-9133-z
- Reid, M. A., DiPerna, J. C., Morgan, P. L., & **Lei, P.-W.** (2009). Reliability and validity evidence for the EARLI literacy probes. *Psychology in the Schools*, *46*(10), 1023-1035. doi: 10.1002/pits.20441
- Chen, S.-Y., **Lei, P.-W.**, & Liao, W.-H. (2008). Controlling item exposure and test overlap on the fly in computerized adaptive testing. *British Journal of Mathematical and Statistical Psychology*, *61*, 471-492. doi:10.1348/000711007X227067
- Hannum, W. H., Irvin, M. J., **Lei, P.-W.**, & Farmer, T. W. (2008). Effectiveness of using learner-centered principles on student retention in distance education courses in rural schools. *Distance Education*, *29*(3), 211-229. doi: 10.1080/01587910802395763
- Yu, L., Suen, H. K., & **Lei, P.-W.** (2008). Using a differential item functioning (DIF) procedure to detect opportunity to learn (OTL): An extension of Winfield's approach. *Journal of Educational Research & Policy Studies*, *8*(1), 1-22.
- Ritter, S., Kulikowich, J., **Lei, P.-W.**, McGuire, C.L. & Morgan, P. (2007). What evidence matters? A randomized field trial of Cognitive Tutor Algebra I. In T. Hirashima, U. Hoppe & S. S. Young (Eds.), *Supporting Learning Flow through Integrative Technologies* (Vol. 162, pp. 13-20). Amsterdam: IOS Press.
- Lei, P.-W.** & Wu, Q. (2007). CTTITEM: SAS macro and SPSS syntax for classical item analysis. *Behavior Research Methods*, *39*(3), 527-530.
- Yasuda, T., **Lei, P.-W.**, & Suen, H. K. (2007). Detecting differential item functioning in the Japanese version of the Multiple Affect Adjective Check List-Revised. *Journal of Psychoeducational Assessment*, *25*(4), 373-384. doi: 10.1177/0734282906298643
- Lei, P.-W.**, Warcholak, N. D., Suen, H. K., Williams, B. L., & Magsumbol, M. S. (2007). Empirical Bayes estimation of the prevalence of uninsured individuals by county in the state of Tennessee and analyses of predictive factors. *Evaluation & the Health Professions*, *30*(1), 47-63. doi: 10.1177/0163278706297335
- Lei, P.-W.** & Wu, Q. (2007). Introduction to structural equation modeling: Issues and practical considerations. *Educational Measurement: Issues and Practices*, *26*(3), 33-43.
- DiPerna, J. C., **Lei, P.-W.**, & Reid, E. E. (2007). Kindergarten predictors of mathematical growth in the primary grades: An investigation using the Early Childhood Longitudinal Study – Kindergarten cohort. *Journal of Educational Psychology*, *99*(2), 369-379. doi: 10.1037/0022-0663.99.2.369
- Watkins, M. W., **Lei, P.-W.**, & Canivez, G. L. (2007). Psychometric intelligence and achievement: A cross-lagged panel analysis. *Intelligence*, *35*, 59-68. doi:10.1016/j.intell.2006.04.005

- Lei, P.-W.**, Smith, M., & Suen, H. K. (2007). The use of generalizability theory to estimate data reliability in single subject observational research. *Psychology in the Schools, 44*(5), 433-439. (Special Issue on Statistical Reform in School Psychology) doi: 10.1002/pits.20235
- Watkins, M. W., Glutting, J. J., & **Lei, P.-W.** (2007). Validity of the full scale IQ when there is significant variability among WISC-III and WISC-IV factor scores. *Applied Neuropsychology, 14*(1), 13-20.
- Suen, H. K. 孙开键, **Lei, P.-W.** 李佩华, & Zhou, P. 周鹏 (2007). 测量学中古典论与概推度论的比较 (A comparison between classical and generalizability theories of measurement). *考试研究 Examinations Research, 3*(4), 50-63. Tianjin Admission and Examination Authority, China.
- Lei, P.-W.**, Chen, S. Y., & Yu, L. (2006). Comparing methods of assessing differential item functioning in computerized adaptive testing environment. *Journal of Educational Measurement, 43*(3), 245-264.
- Reid, E. E., Morgan, P. L., DiPerna, J. C., & **Lei, P.-W.** (2006). Development of measures to assess young children's early academic skills: Preliminary findings from a Head Start-university partnership. *Insights on Learning Disabilities, 3*(2), 25-38.
- Chen, S.-Y., & **Lei, P.-W.** (2005). Controlling item exposure and test overlap in computerized adaptive testing. *Applied Psychological Measurement, 29*(3), 204-217. doi: 10.1177/0146621604271495
- Lei, P.-W.**, Dunbar, S. B., & Kolen, M. J. (2004). A comparison of parametric and nonparametric approaches to item analysis for multiple-choice tests. *Educational and Psychological Measurement, 64*(4), 565-587. doi: 10.1177/0013164403261760
- Yasuda, T., Lawrenz, C., Van Whitlock, R., Lubin, B., & **Lei, P.-W.** (2004). Assessment of intraindividual variability in positive and negative affect using latent state-trait model analyses. *Educational and Psychological Measurement, 64*(3), 514-530. doi: 10.1177/0013164403258445
- Lei, P.-W.**, & Dunbar, S. B. (2004). Effects of score discreteness and estimating alternative model parameters on power estimation methods in structural equation modeling. *Structural Equation Modeling, 11*(1), 20-44.
- Lei, P.-W.**, & Koehly, L. M. (2003). Linear discriminant analysis versus logistic regression: A comparison of classification errors in the two-group case. *Journal of Experimental Education, 72*(1), 25-49.
- Lei, P.-W.**, Bassiri, D., & Schulz, E. M. (2003). A comparative evaluation of methods of adjusting GPA for differences in grade assignment practices. *Journal of Applied Measurement, 4*(1), 70-86.

Non-Refereed Journals

- Lei, P.-W.** 李佩华, & Wu, Q. 吴琼 (2008). 考生分数误差指数的应用探讨 (Exploring the utility of indices evaluating examinee-level errors of measurement). *教育與考試 Education and Examinations, 7*(1), 18-24. Fuzhou, Fujian: China.

- Suen, H. K. & **Lei, P.-W.** (2007). Classical versus generalizability theories of measurement. *Educational Measurement (Russian), 1*, 3-20.

Book Sections/Chapters

- Wijekumar, K. Harris, K., Graham, S., Meyer, B.J.F., **Lei, P.-W.**, (in press). Improving persuasive writing with a teacher-managed web-based intelligent tutoring system implementing self-regulated strategies development. In Robert K. Atkinson (Ed.) *Intelligent Tutoring Systems: Structure, Applications and Challenges*.
- Wijekumar, K. K., Meyer, B. J. F., **Lei, P.-W.** (in press). Improving content area reading comprehension with 4-6th grade Spanish ELLS using web-based structure strategy instruction. In J. Michael Spector & Dirk Ifenthaler (Eds). *Information Technology Solutions for Learning*. Springer.

Lei, P.-W. (2015). Evaluating estimation methods for ordinal data in structural equation modeling. Reprinted in S. Babones (Ed.), *Latent Variables and Factor Analysis* (chapter 51, pp. 41-55). New Delhi, India: SAGE Publications Ltd. ISBN: 9781446294604.

Lei, P.-W., & Wu, Q. (2012). Estimation in Structural Equation Modeling. In R. H. Hoyle (Ed), *Handbook of Structural Equation Modeling*, pp.164-180. New York, NY: Guilford Press.

Suen, H. K., **Lei, P.-W.**, & Li, H. L. (2011). Data analysis for effective decision making. In T.J. Kehle & M.A. Bray (Eds.), *Oxford Handbook of School Psychology* (pp.140-168). Oxford, UK: Oxford University Press.

Lei, P.-W. (2006). Structural equation modeling (SEM). In N. J. Salkind & K. L. Rasmussen (Eds.), *Encyclopedia of Measurement and Statistics* (pp.973-976). Thousand Oaks, CA: Sage Publications, Inc.

Reviews

Lei, P.-W. (2004). Book Review: [*Structural equation modeling: Foundations and extensions*] By D. Kaplan, Thousand Oaks, CA: Sage, 2000. *Psychometrika*, 69(2), 319-321.

Research Reports to Sponsors

Wijekumar, K., Harris, K. R., Graham, S., Meyer, B., & Lei, P.-W. (March, 2014-15). Development of a web-based writing project (We-Write persuasively) to improve writing persuasive essays for 5th graders. Annual Performance Report to the Institute of Education Sciences, U.S. Department of Education (Award No. R305A130705).

Wijekumar, K., Meyer, B., & Lei, P.-W., Hernandez, A. (March, 2013-15). Improving reading comprehension of middle grades English language learners by combining structure strategy with web-based adaptive tutoring for EL learners (SWELL). Annual Performance Report to the Institute of Education Sciences, U.S. Department of Education (Award No. R305A130704).

DiPerna, J. C., & **Lei, P.-W.** (September 2015). The Social Skills Improvement System Classwide Intervention Program: Social, behavior, and academic outcomes in the primary grades. Final Performance Report to the Institute of Education Sciences, U.S. Department of Education (Award No. R305A090438).

DiPerna, J. C., & **Lei, P.-W.** (April 2012 – Oct 2014). The Social Skills Improvement System Classwide Intervention Program: Social, behavior, and academic outcomes in the primary grades. Annual Performance Report to the Institute of Education Sciences, U.S. Department of Education (Award No. R305A090438).

Wijekumar, K., Meyer, B., & **Lei, P.-W.** (Oct, 2013). Efficacy and replication research on the intelligent tutoring system for the structure strategy – rural and suburban schools grades 4, 5, 7 & 8. Final Performance Report to the Institute of Education Sciences, U.S. Department of Education (Award No. R305A080133).

Wijekumar, K., Meyer, B., Lei, **P.-W.**, & Lin, Y.-C. (June 2011- June 2012). Efficacy and replication research on the intelligent tutoring system for the structure strategy – rural and suburban schools grades 4, 5, 7 & 8. Annual Performance Report to the Institute of Education Sciences, U.S. Department of Education (Award No. R305A080133).

Wijekumar, K., Meyer, B., & **Lei, P.-W.** (June 2009 - June 2010). Efficacy and replication research on the intelligent tutoring system for the structure strategy – rural and suburban schools grades 4, 5, 7 & 8. Annual Performance Report to the Institute of Education Sciences, U.S. Department of Education (Award No. R305A080133).

DiPerna, J. C., Morgan, P. L., & **Lei, P.-W.** (Dec, 2009). *Development of Early Arithmetic, Reading, and Learning Indicators for Head Start (The EARLI Project)*. Final Performance Report to the U.S. Department of Health and Human Services Administration for Children and Families (Award No. 90YF0047/01).

- Wijekumar, K., Hitchcock, J., Turner, H., **Lei, P.-W.**, & Peck, K. (2009). *A Multisite Cluster Randomized Trial of the Effects of CompassLearning Odyssey® Math on the Math Achievement of Selected Grade 4 Students in the Mid-Atlantic Region* (NCEE 2009-4068). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. [peer reviewed]
- Meyer, B.J.F., Wijekumar, K., Middlemiss, W., Higley, K., Meier, C., Spielvogel, J., **Lei, P.-W.** (October 2008). Effects of Different Ways to Deliver Web-Based Instruction About the Structure Strategy. Technical Report No. 2 of the Reading Comprehension: Structure Strategy Series. University Park, PA: The Pennsylvania State University, 98 pages.
- DiPerna, J. C., Morgan, P. L., & **Lei, P.-W.** (April 2005 - May 2007). Development of Early Arithmetic, Reading, and Learning Indicators for Head Start (The EARLI Project). Semi-Annual Performance Report to the U.S. Department of Health and Human Services Administration for Children and Families (Award No. 90YF0047/01).
- Suen, H. K., **Lei, P.-W.**, & Warcholack, N. (September, 2005). Empirical Bayes estimation of the prevalence of uninsured individuals by county in the state of Tennessee and analyses of predictive factors. A technical report to the PROBE Laboratory of Health Science Center, University of Tennessee at Memphis.
- Lei, P.-W.**, Bassiri, D., & Schulz, E. M. (2001). *Alternatives to the grade point average as a measure of academic achievement in college*. (ACT Research Report Series, 2001-4) Iowa City, IA.

Sponsored Research

- Crosson A. (PI). Returning to Our Roots: Development of a Morphology Intervention to Bolster Academic Vocabulary Knowledge for Adolescent English. U.S. Department of Education Institute of Education Sciences, 2016-2018, \$1.5 million. (Faculty)
- Wijekumar, K., Meyer, B.J.F., **Lei, P.-W.** Efficacy and Replication Trial of the Individualized Adaptive ITSS with 4th and 5th Grade Students in High Poverty Schools. U.S. Department of Education Institute of Education Sciences, 2015-2019, \$3.5 million. R305A15077. (Subcontract from Texas A&M through Johnson, L. (PI) PSU Beaver; \$1,124,533; 7/1/15-6/30/19).
- Wijekumar, K., Meyer, B.J.F., **Lei, P.-W.**, Harris, K. & Graham, S. Development of a web-based writing partner (We-Write Persuasively) to improve writing persuasive essays for 5th grade students. U.S. Department of Education Institute of Education Sciences, 2013-2016, \$1,489,755. (Subcontract from Texas A&M through Johnson, L. (PI) PSU Beaver; \$292,288; 7/1/14-6/30/16).
- Wijekumar, K., Meyer, B.J.F., **Lei, P.-W.**, & Hernandez, A. Improving Reading Comprehension of Middle Grades English Language Learners by Combining Structure Strategy with Web-Based Adaptive Tutoring for EL Learners (SWELL). U.S. Department of Education Institute of Education Sciences (R3058120593), 2012-2015, \$1,497,191. (Subcontract from Texas A&M through Johnson, L. (PI) PSU Beaver; \$273,446; 7/1/14-6/30/15).
- DiPerna, J. C., **Lei, P.-W.** Revised: The Social Skills Improvement System Classwide Intervention Program: Social, Behavioral, and Academic Outcomes in the Primary Grades, Institute of Education Sciences, 7/1/09-6/30/15, \$2,412,860.
- Wijekumar, K. J., Meyer, B. J., & **Lei, P.-W.** Efficacy and Replication Research on the Intelligent Tutoring System for the Structure Strategy -- Rural and Suburban Schools Grades 4,5,7 and 8, Institute of Education Sciences (R305A080133), 7/08-7/12, \$2,999,929.
- DiPerna, J. C., Morgan, P., & **Lei, P.-W.** Development of Early Arithmetic, Reading, and Learning Indicators for Head Start Populations (The EARLI Project), Department of Health and Human Services, 10/04-10/09, \$597,819.

DiPerna, J. C., Morgan, P. L., & **Lei, P.-W.** Development of early arithmetic, reading, and learning indicators for preschoolers. Children, Youth, and Families Consortium Level II Grant, The Pennsylvania State University, 9/05-9/06, \$20,000.

Van Meter, P. N., **Lei, P.-W.**, & Stevens, B. J. Modeling influences of reading ability constructs on comprehension. Children Youth and Families Consortium, The Pennsylvania State University, 5/04-5/05, \$11,282.

Meyer, B. J., Wijekumar, K. J., Middlemiss, W., Sperling, R. A., **Lei, P.-W.**, Popp, J. D., Van Horn, B. Intelligent Tutoring Using the Structure Strategy to Improve Reading Comprehension of Middle School Students. U.S. Department of Education, 8/03-8/07, \$1,179,618.

Presentations

International/National

Zhao, Y. & Lei, P.-W. (2016, April). *Factors Affecting the Robust Weighted Least Squares Model Fit Measures in Confirmatory Factor Analysis*. Paper presented at the annual meeting of the American Education Research Association, Washington, D.C.

Wijekumar, K., Meyer, B. J. F., & Lei, P.-W., Hernandez, A. C., & Montelongo, J. A. (2016, April). *Improving Content Area Reading Comprehension of 4th and 5th Grade Spanish Speaking English Language Learners*. In the “Content Area Reading Comprehension and Writing in European and American Schools” symposium presented at the World Educational Research Association (WERA) Focal Meeting, Washington, D.C.

Graham, S., Wijekumar, K., Harris, K. R., Lei, P.-W., & Meyer, B. J. F. (2016, April). *Factors Contributing to Writing Skills of 5th Grade Learners*. In the “Content Area Reading Comprehension and Writing in European and American Schools” symposium presented at the World Educational Research Association (WERA) Focal Meeting, Washington, D.C.

Sandilos, L. E., Shervey, S. W., DiPerna, J. C., Cheng, W., & Lei, P.-W. (2016, April). *Validity of Teacher-Child Interactions in Primary Grades: Testing Alternative CLASS K-3 Models*. Roundtable session presented at the annual meeting of the American Education Research Association, Washington, D.C.

Hao, L., Lei, P.-W., Yu, X., & Cheng, W. (2016, April). *Rural-urban Migration and Cognitive Skills among Middle Schoolers in China*. Paper presented at the 2016 Annual Meetings of Population Association of America. Washington, D.C.

Kavanagh, C., Graham, S., Wijekumar, K., Harris, K. R., Lei, P.-W., Barkel, A., Aitken, A., Cunningham, J., & Ray, A. (2016, February). Poster presented at the annual Pacific Coast Research Conference, Coronado Bay, CA.

Shervey, S. W., DiPerna, J. C., Sandilos, L. E., Silvestri, J., & Lei, P.-W. (2015, August). *Implementation Fidelity of the Social Skills Improvement System Classwide Intervention Program*. Poster presented at the annual convention of the American Psychological Association. Toronto, Canada.

Sandilos, L. E., Cheng, W., Shervey, S. W., DiPerna, J. C., & Lei, P.-W. (2015, August). *Factor Structure of the Classroom Assessment Scoring System (CLASS K-3) in a Primary Grade Sample*. Poster presented at the annual convention of the American Psychological Association. Toronto, Canada.

Winnick, J. B., Berg, C. A., Wiebe, D. J., Schaefer, B. A., Lei, P.-W., & Butner, J. E. (2015, August). *Relation between Metabolic Control and Achievement over Time in Adolescents with Type 1 Diabetes*. Poster presented at the annual convention of the American Psychological Association. Toronto, Canada.

Wijekumar, K., Meyer, B. J. F., Lei, P.-W., Hernandez, A., Montelongo, J. (2015, July). *Improving content area reading comprehension with Spanish speaking English Language Learners in grades 4-6 using web-based tutoring for the structure strategy*. Twenty-Second annual meeting of the Society for the Scientific Study of Reading, Kamuela, HI.

- Marino, K. & Lei, P.-W. (2015, April). *Classroom Level Influence in Multilevel IRT School Effectiveness Research*. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, IL.
- Wijekumar, K., Meyer, B. J. F., & Lei, P.-W. (2015, April). *Efficacy of the web-based intelligent tutoring system for the structure strategy with 4th and 5th-grade students in high poverty schools*. Paper presentation at the annual meeting of the American Education Research Association, Chicago, IL.
- Meyer, B. J. F., Wijekumar, K. & Lei, P.-W. (2015, March). *Use of Comparative Text Signals: Variations across Grades, Comprehension Abilities, and Instruction*. In K. Wijekumar, J. Williams, B.J.F., K. Harris, & E. Albro, Panel Session entitled, "The Many Facets and Applications of Text Structure in Supporting Educational Trajectories of Elementary and Middle Grade Children in Content Area Reading Comprehension and Writing," annual convention of the Society for Research on Educational Effectiveness, Learning Curves: Creating and Sustaining Gains from Early Childhood through Adulthood. Washington, D.C.
- Wijekumar, K., Meyer, B.J.F., & Lei, P.-W. (2015, March). *The Power of Text Structure*. In K. Wijekumar, J. Williams, B.J.F., K. Harris, & E. Albro, Panel Session entitled, "The Many Facets and Applications of Text Structure in Supporting Educational Trajectories of Elementary and Middle Grade Children in Content Area Reading Comprehension and Writing," annual convention of the Society for Research on Educational Effectiveness, Learning Curves: Creating and Sustaining Gains from Early Childhood through Adulthood. Washington, D.C.
- Wijekumar, K., Meyer, B. J. F., & Lei, P.-W. (2014, October). *Improving Content Area Reading Comprehension with 4-6th Grade Spanish ELLs using Web-based Structure Strategy Instruction*. Proceedings of the 11th International Conference on Cognition and Exploratory Learning in the Digital Age (CELDA, pp.158-164), Porto, Portugal: IADIS Press. ISBN: 978-989-8533-23-4.
- Marino, K. & Lei, P.-W. (2014, October). *Consequences of Disregarding Nesting in Education Research*. Paper presented at the annual meeting of the Northeastern Educational Research Association, Trumbull, CT.
- Li, H., Hunter, C.V., & Lei, P.-W. (2014, October). *The Selection of Cognitive Diagnostic Models for a Reading Comprehension Test*. Paper presented at the annual meeting of the Northeastern Educational Research Association, Trumbull, CT.
- Li, H., Qi, Q., & Lei, P.-W. (2014, October). *An Examination of Instructional Sensitivity of TIMSS Math Items: A Hierarchical Differential Item Functioning Approach*. Paper presented at the annual meeting of the Northeastern Educational Research Association, Trumbull, CT.
- Cheng, W., Lei, P.-W., DiPerna, J. C., & Bellinger, J. (2014, August). *A Short-term Longitudinal Relationship between Academic Motivation and Achievement in the Primary Grades*. Poster presentation at the annual convention of the American Psychological Association. Washington, DC.
- Anthony, C. J., DiPerna, J. C., & Lei, P. (2014, April). *Developing short forms of the Social Skills Improvement System – Teacher Rating Scale*. Paper presentation at the annual meeting of the American Education Research Association, Philadelphia, PA.
- Lei, P.-W. & Li, H. (2014, April). *Fit Indices' performance in choosing cognitive diagnostic models and Q-matrices*. Paper presented at the annual meeting of the National Council on Measurement in Education, Philadelphia, PA.
- Marino, K. & Lei, P.-W. (2014, April). *Effects of Ignoring Hierarchical Data Structure in Factor Analyses*. Paper presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.
- Wijekumar, K., Meyer, B. J. F., & Lei, P.-W. (2014, April). *Small Steps to Big Gains in Reading Comprehension with 4-6th Grade Spanish ELLs*. Paper presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.

- Smith, E., Lei, P.-W., Witherspoon, D., & Osgood, D. W. (2014, March). Exploring the Moderators of Effective Implementation of PaxGBG in Afterschool Settings. Paper presented at the biennial meeting of the Society for Research on Adolescence, Austin, TX.
- DiPerna, J. C., Lei, P.-W., Bellinger, J. M., & Cheng, W. (2014, March). *Efficacy of the Social Skills Improvement System-Classwide Intervention Program in the Primary Grades*. Paper presentation at the annual convention of the Society for Research on Educational Effectiveness. Washington, DC.
- DiPerna, J. C., Lei, P., Bellinger, J., & Cheng, W. (2014, February). *Efficacy of the Social Skills Improvement System Classwide Intervention Program*. Paper presentation at the annual meeting of the National Association of School Psychologists, Washington, DC.
- Wu, Q., Lei, P.-W. (2013, September). Psychometric properties of the literacy test from China Family Panel Studies - Comparing Different Approaches to Estimating Reliabilities and Scoring. Paper presented at the 2013 International Conference on Survey Research Methodology, Taipei, Taiwan.
- Lei, P.-W., DiPerna, J. C., Cheng, W., & Bellinger, J. (2013, August). The Social Skills Improvement System-Teacher Rating Scale: An Independent Study of Factor Structure. Poster presented at the annual convention of the American Psychological Association, Honolulu, HI.
- DiPerna, J. C., Lei, P.-W., Bellinger, J., & Cheng, W. (2013, August). The Social Skills Improvement System Classwide Intervention Program: Student Outcomes in the Primary Grades. Poster presented at the annual convention of the American Psychological Association, Honolulu, HI.
- Wijekumar, K., Meyer, B. J. F., Pirnay-Dummer, P. & Lei, P.-W. (2013, August). Assessment of Comprehension and Writing in Intelligent Tutoring Systems. Poster presented at the annual convention of the American Psychological Association, Honolulu, HI.
- Cheng, W., Lei, P.-W., & DiPerna, J. (2013, May). Efficacy of the Social Skills Improvement System Classwide Intervention Program in the Primary Grades. Roundtable session presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
- Wijekumar, K., Meyer, B. J. F., & Lei, P.-W. (2013, May). Is Learning Road-Kill on the Information Highway? Roundtable session presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
- Perlman, E. H., DiPerna, J. C., Lei, P., & Cheng, W. (2013, February). Effects of social skills intervention for students with disabilities. Poster Presentation at the annual meeting of the National Association of School Psychologists, Seattle, WA.
- Lei, P.-W. & Li, H. (2012, April). *Small Sample DIF Estimation Using Log-Linear Smoothing with SIBTEST and Cochran's Z*. Paper presented at the annual meeting of the American Educational Research Association, Vancouver, Canada.
- Li, H. & Lei, P.-W. (2012, April). *Reading Subskill Differences between Students in China and the US: Evidence from PISA 2009*. Paper presented at the annual meeting of the American Educational Research Association, Vancouver, Canada.
- Cheng, W.-Y. & Lei, P.-W. (2012, April). *Examining the Dimensionality of EARLI Numeracy Skill Scores*. Paper presented at the annual meeting of the National Council on Measurement in Education, Vancouver, Canada.
- Wijekumar, K., Meyer, B. J. F., & Lei, P.-W. (2012, April). The Efficacy of a Web-based Intelligent Tutoring System Designed to Teach the Structure Strategy to 5th Grade Students. Paper presented at the annual meeting of the American Educational Research Association, Vancouver, Canada.

- Shih, S.-I., Lei, P.-W., & Mohammed, S. (2012, April). *Developing a Short Form of the Decision Style Scale*. Poster presented at the 27th annual conference of the Society for Industrial and Organizational Psychology, San Diego, CA.
- Zhao, Y. & Lei, P.-W. (2011, April). *The Performance of Model Fit Indices in Robust Weighted Least Squares Estimations in Structural Equation Modeling*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Wijekumar, K., Meyer, B. J. F., & Lei, P.-W. (2010, June). *Improving Reading Comprehension in grade 4-8 using a web-based tutoring system*. Poster presented at the fifth annual Institute of Education Sciences Research Conference, National Harbor, MD.
- Meyer, B. J. F., Wijekumar, K., Lei, P.-W., Lin, Y.-C. & Ray, M. (2010, May). *The Structure Strategy: A Program of Intervention-based Research in Reading Comprehension of Expository Text* in Symposium of Reading for Understanding: Where We Were, Where We Are, Where We Need To Be. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.
- Lei, P.-W., & Zhao, Y. (2010, May). *A comparison of concurrent and separate calibration in estimating growth rate*. Paper presented at the annual meeting of the National Council on Measurement in Education, Denver, CO.
- Zhao, Y., Lei, P.-W., Li, H., Tate, R., & Lin, Y. (2010, May). *Developing short forms of a psychological screening measure using classical and item response theory approaches*. Poster presented at the annual meeting of the American Educational Research Association, Denver, CO.
- Hochstedt, K. S., Lei, P.-W., DiPerna, J. C., & Morgan, P. L. (2009, August). *A Dimensionality Study of the EARLI Literacy Probes*. Poster presented at the annual convention of the American Psychological Association, Toronto, Canada.
- Wu, Q., & Lei, P.-W. (2009, April). *Covariates in Latent Class Analysis — to Add or not to Add?* Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.
- Wu, Q., & Lei, P.-W. (2009, April). *Using Multi-group Mean and Covariance Structure Analysis to Detect DIF when Tests are Multidimensional*. Paper presented at the annual meeting of the National Council on Measurement in Education, San Diego, CA.
- Lei, P.-W., DiPerna, J. C., Morgan, P. L., Wu, Q., & Hochstedt, K. S. (2008, August). *Scaling Adaptive Forms for Growth Tracking in Early Academic Skills*. Poster presented at the annual convention of the American Psychological Association, Boston, MA.
- McGinnis, A., DiPerna, J. C., Morgan, P. L., Lei, P.-W., Reid, E. E., & Wu, Q. (2008, August). *Sex Differences in Progress-Monitoring Performance in Preschool Students*. Poster presented at the annual convention of the American Psychological Association, Boston, MA.
- DiPerna, J. C., Morgan, P. L., Lei, P.-W., Reid, E. E., & Wu, Q. (2008, June). *Development of Early Arithmetic, Reading, and Learning Indicators for Head Start*. Poster presented at the Head Start's Tenth National Research Conference, Washington, DC.
- DiPerna, J. C., Morgan, P. L., Lei, P.-W., Reid, E. E., & Wu, Q. (2008, June). *The EARLI Numeracy Probes: Early Academic Measures for Children in Head Start*. Poster presented at the Head Start's Tenth National Research Conference, Washington, DC.
- Wu, Q., & Lei, P.-W. (2008, March). *An Investigation of Model Fit Indices for Non-nested Latent Class Models with Continuous Indicators*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

- Wu, Q., & Lei, P.-W. (2008, March). *An Investigation of the Application of Mean and Covariance Structure Analysis to DIF with Dichotomous Items*. Paper presented at the annual meeting of the National Council on Measurement in Education, New York, NY.
- Ritter, S., Kulikowich, J., Lei, P.-W., McGuire, C., & Morgan, P. (2007, November). *What Evidence Matters? Evaluating a Randomized Field Trial of Cognitive Tutor Algebra I*. Paper presented at the 15th International Conference on Computers in Education, Hiroshima, Japan.
- Lei, P.-W., Wu, Q., DiPerna, J. C., & Morgan, P. L. (2007, April). *Composing Shorter Test Forms for Progress Monitoring of Head Start Children in Mathematics Skills*. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, IL.
- Wu, Q., & Lei, P.-W. (2007, April). *Recovery of Parametric Item Characteristic Curves with Parametric and Nonparametric IRT models*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- DiPerna, J. C., Morgan, P. L., Lei, P.-W., Reid, E. E., & Wu, Q. (2007, March). *Development of Progress-Monitoring Measures to Assess Preschoolers' Pre-Literacy and Early Mathematical Skills*. Poster presented at biennial meeting of the Society for Research in Child Development, Boston, MA.
- DiPerna, J. C., Morgan, P. L., Lei, P.-W., Reid, E. E., & Wu, Q. (2006, November). *The EARLI Mathematics Probes: Initial Reliability and Validity Evidence for Children in Head Start*. Poster presented at annual meeting of the National Association for the Education of Young Children, Atlanta, GA.
- DiPerna, J. C., Morgan, P. L., Lei, P.-W., Reid, E. E., & Wu, Q. (2006, June). *Development of Progress-Monitoring Measures to Assess Preschooler's Early Mathematical Skills*. Poster presented at the Head Start's Eighth National Research Conference, Washington, DC.
- DiPerna, J. C., Morgan, P. L., Lei, P.-W., Reid, E. E., & Wu, Q. (2006, June). *Development of Early Arithmetic, Reading, and Learning Indicators for Head Start*. Poster presented at the Head Start's Eighth National Research Conference, Washington, DC.
- Yu, L., Lei, P.-W., & Suen, H. K. (2006, April). *Examining the Feasibility of Using a DIF Method to Detect Differences in Opportunity-to-Learn*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
- Bishop, N. S., Sharairi, S., Swift, D., Lei, P.-W., & Domaleski, C. (2006, April). *Comparing growth and AYP results over multiple years using different IRT scale transformation and scoring procedures*. Paper presented at the annual meeting of the National Council on Measurement in Education, San Francisco, CA.
- Bishop, N. S., Swift, D., Sharairi, D., Lei, P.-W., & Domaleski, C. (2006, April). *Alternative procedures for identifying non-reading test items with high reading loads*. Paper presented at the annual meeting of the National Council on Measurement in Education, San Francisco, CA.
- DiPerna, J. C., & Lei, P.-W. (2005, August). *Children's behavioral and mathematics growth in the primary years*. Paper presented at the annual meeting of the American Psychological Association (Division 16). Washington, DC.
- Lei, P.-W. (2005, April). *Effect of Score Nonnormality and Categorization: A comparison of the Mplus and EQS Approaches to Robust Estimation*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.
- Lei, P.-W. (2005, April). *Effect of Score Nonnormality and Categorization on Bootstrapping and Satorra-Saris Power Estimation*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

- Lei, P.-W., Chen, S. Y., & Yu, L. (2005, April). *Comparing Methods of Assessing Differential Item Functioning in Computerized Adaptive Testing Environment*. Paper presented at the annual meeting of the National Council on Measurement in Education, Montreal, Canada.
- Alharby, E. R., Suen, H. K., & Lei, P.-W. (2005, March). *Gender Differences in Mathematics Standardized Tests in Saudi Arabia*. Paper presented at the annual meeting of the Comparative International Education Society, Palo Alto, CA.
- Chen, S.-Y., & Lei, P.-W. (2004, April). *Controlling item exposure and test overlap in computerized adaptive testing*. Paper presented at the annual meeting of the National Council on Measurement in Education, San Diego, CA.
- Lei, P.-W., & Dunbar, S. B. (2002, April). *Power estimation methods in structural equation modeling*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Lei, P.-W., Basssiri, D., & Schulz, E. M. (2001, April). *Alternatives to the grade point average as measures of academic achievement in college*. Roundtable session presented at the annual meeting of the American Educational Research Association, Seattle, WA.
- Lei, P.-W., Dunbar, S. B., & Kolen, M. J. (2000, April). *A comparison of parametric and nonparametric approaches to item analysis for multiple-choice tests*. Paper presented at the annual meeting of the National Council on Measurement in Education, New Orleans, LA.
- Lei, P.-W., & Koehly, L. M. (2000, April). *Discriminant analysis versus logistic regression: A comparison of classification errors*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Lei, P.-W., Kwan, V., & Rafferty, J. M. (1995, June). *Depth of processing related intrusions in a forced recall task*. Poster presented at the annual meeting of the American Psychological Society, NY.

State/Local

- Lei, P.-W. (1994, August). *Follow-up contacts with shelter clients*. Paper presented at the meeting of the Undergraduate Psychology Conference, Northfield, MN.

Courses Taught in Resident Instruction

- EDPSY 406 ~ Applied Statistics in Behavioral Sciences (3 credits)
- EDPSY 506 ~ Advanced Techniques for Analyzing Educational Experiments (3 credits)
- EDPSY 507 ~ Multivariate Procedures in Educational Research (3 credits)
- EDPSY 550 ~ Design and Construction of Measurement Instruments (3 credits)
- EDPSY 558 (597A/B) ~ Structural Equation Modeling (3 credits)
- EDPSY 556 (597A) ~ Foundations and Applications of Item Response Theory (3 credits)
- EDPSY 596 ~ Individual Studies (3-6 credits)
- EDPSY 575 ~ Professional Seminar (1 credit)
- EDPSY 600 ~ Thesis Research (1-3 credits)
- EDPSY 601 ~ Doctoral Dissertation Research (12 credits)