

## **JONATHAN TEMPLIN**

## **CURRICULUM VITAE**

Professor and E. F. Lindquist Chair  
Department of Psychological and  
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### **EDUCATION**

#### **Ph.D. in Psychology (Quantitative; 2004)**

University of Illinois at Urbana-Champaign

#### **M.A. in Psychology (2002)**

University of Illinois at Urbana-Champaign

#### **M.S. in Statistics (2002)**

University of Illinois at Urbana-Champaign

#### **B.A. in Psychology (*magna cum laude*; 1998)**

California State University, Sacramento; Minor: Statistics

#### **A.A. in General Studies (1996)**

American River College; Sacramento, California

#### **A.S. in Mathematics and Physical Science (1996)**

American River College; Sacramento, California

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### **ACADEMIC POSITIONS**

#### **University of Iowa**

##### Department of Psychological and Quantitative Foundations

Professor and E. F. Lindquist Chair (January 2019 – Present)

#### **University of Kansas**

##### Department of Educational Psychology

Associate Chair (August 2017 – December 2018)

Professor (August 2017 – December 2018)

Associate Professor (January 2017 – July 2017)

##### Department of Educational Psychology Joint with Achievement and Assessment Institute

Associate Professor (January 2014 – December 2016)

##### Department of Psychology (Quantitative Program)

Assistant Professor (August 2005 – May 2007)

**ACADEMIC POSITIONS, CONTINUED**

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**University of Nebraska-Lincoln**

Department of Psychology (Cognitive and Quantitative Program)

Associate Professor (August 2012 – December 2013)

**The University of Georgia**

Department of Educational Psychology Joint with Georgia Center for Assessment

Associate Professor (August 2011 – August 2012)

Assistant Professor (June 2007 – July 2011)

**University of Illinois at Urbana-Champaign**

Department of Educational Psychology (Quantitative Evaluation Program)

Visiting Assistant Professor (January 2005 – May 2005)

**PATENTS**

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“Techniques for Diagnostic Assessment”, Patent Pending (Pub. No. US2020/0273363; Inventor: Pub. Date: August 27, 2020).

“Method for Estimating Examinee Attribute Parameters in Cognitive Diagnosis Models,” US Patent Nos. 7,628,614 and 8,550,822, (Inventor: December 8, 2009 and October 8, 2013).

**AWARDS**

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**Robert L. Linn Memorial Lecture Award, 2017**

- University of Colorado-Boulder and University of California-Los Angeles

**Outstanding Contribution to Research in Cognition and Assessment, 2014-2015**

- American Educational Research Association, Cognition and Assessment SIG.

**Significant Contribution to Educational Measurement and Research Methodology, 2012**

- American Educational Research Association, Division D. For Diagnostic Measurement: Theory, Methods, and Applications (Rupp, Templin, & Henson, 2010).

**EDITORSHIPS AND ASSOCIATE EDITORSHIPS**

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**Editorships:**

- **Journal of Educational Measurement** (Co-editor; April 2016-December 2019)
- **International Journal of Testing** (Guest editor; November 2014 – March 2016)

**Associate Editorships:**

- **Behaviormetrika** (December 2020-Present)
- **Psychometrika** (August 2012 – March 2019)
- **Applied Psychological Measurement** (June 2012 – April 2016)
- **Guest Associate Editor: Psychological Methods** (August 2014 – September 2015)

## **EDITORIAL BOARD SERVICE**

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### **Editorial Board:**

- **European Journal of Psychological Assessment** (July 2017 – Present)
- **Applied Psychological Measurement** (April 2016 – Present)
- **Educational Measurement: Issues and Practice** (January 2013 – Present)
- **International Journal of Testing** (January 2015 – June 2019)
- **School Psychology Quarterly** (January 2009 – December 2012)

## **CURRENT GRANT FUNDING**

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**Principal Investigator:** Doctoral Dissertation Research: Multidimensional Nominal Response Models in Adaptive Testing (as Advisor to Catherine Mintz). National Science Foundation, Division of Social and Economic Sciences (SES-2119912) \$11,994.00.

**Co-Principal Investigator:** Developing a Learning Map for Introductory Statistics (2016-2021). National Science Foundation, Division of Undergraduate Education (DUE-1544481) \$299,007.

**Co-Principal Investigator:** Usable Measures of Teacher Understanding: Exploring Diagnostic Classification Models and Topic Analysis as Tools for Assessing Proportional Reasoning for Teaching (2018-2021). National Science Foundation, Discovery Research K-12 (DRL-1813760), \$316,995.

**Co-Principal Investigator:** Project DIMES: Diagnostic Instrument for Morphology of Elementary Students. Institute of Education Sciences (2019-2022). Institute of Education Sciences (R305A190079), \$426,381.

**Co-Principal Investigator:** Predictive Validity of GMAT Scores Focusing on Subgroup Differences. Graduate Management Admissions Council (2021-2022).

## **PREVIOUSLY FUNDED GRANT PROPOSALS**

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**Principal Investigator:** Kansas Multi-Tiered Systems of Support and Alignment Item Review. (2019-2020, \$18,000).

**Key Personnel:** Design and Development of a Dynamic Learning Maps Alternate Assessment. United States Department of Education, Office of Special Education Programs (2010-2014, \$24,875,111). PI: Neal Kingston.

**Principal Investigator:** Development of Diagnostic Classification Models for Traumatic Brain Injury Diagnosis based on Event Related Potential Data (2013-2014). University of Nebraska Layman New Directions Program, \$10,000.

**Principal Investigator:** Collaborative Research: Longitudinal Diagnostic Models (2010-2013). National Science Foundation: Measurement, Methodology, and Statistics Program (MMS; SES-1030337), \$150,000.

**Principal Investigator:** Collaborative Research: Constrained Finite Mixture Models for Psychological Diagnosis and Educational Assessment (2007-2009). National Science Foundation: Measurement, Methodology, and Statistics (MMS; SES-0750859), \$260,000.

**Principal Investigator:** Constrained Finite Mixture Models for Psychological Diagnosis and Educational Assessment (2006). University of Kansas, New Faculty General Research Fund, \$8,000.

**Co-Principal Investigator:** Diagnosing Teachers' Multiplicative Reasoning (2008-2012). National Science Foundation: Discovery Research K-12 (DRK-12; DRL-0822064), \$944,163. PI: Andrew Izsák.

**Co-Principal Investigator:** Diagnosing AutoMentor: Virtual Mentoring and Assessment in Computer Games for STEM Learning (2009-2014). National Science Foundation: Division of Research on Learning in Formal and Informal Settings (DRL-0918409) \$2,080,693. PI: David Williamson Shaffer.

**Co-Principal Investigator/Core Faculty:** Georgia Measurement and Assessment Training – Postdoctoral Program (2008-2012). United States Department of Education, Institute of Educational Sciences (IES- R324B080006), \$596,652. PI: Randy Kamphaus.

**Co-Principal Investigator:** Assessing Middle School Students' Understandings of the Nature of Scientific Knowledge (2008). University of Georgia, College of Education, Large Collaborative Research Development Grant, \$11,900. PI: Julie Kittleson.

**Key Personnel:** An Adaptive Testing System for Diagnosing Sources of Mathematics Difficulties (2010-2013). United States Department of Education, Institute of Educational Sciences (IES-R305A100234) \$1,854,393. PI: Susan Embretson.

**Key Personnel:** An Interdisciplinary Conference on Assessment in K-12 Mathematics: Collaborations Between Mathematics Education and Psychometrics (2011-2012, \$389,386; DRL-1052618). PI: Andrew Iszák.

**Key Personnel:** Visual Attention in Aging: Bridging Experimental and Psychometric Approaches (2008-2012). National Institutes of Health – National Institute on Aging (5R21AG029222-02, \$322,745). PI: Lesa Hoffman.

**Key Personnel:** Improving Adults' Reading Outcomes with Strategic Tutoring and Content Enhancement Routines (2007-2011). United States Department of Education, Institute of Educational Sciences (IES NCER), \$1,991,961. PI: Darryl Mellard.

**AUTHORED BOOKS**

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Rupp, A., **Templin, J.**, & Henson, R. (2010). *Diagnostic Measurement: Theory, Methods, and Applications*. New York: Guilford. Winner of the 2012 American Educational Research Association Division D Award for Significant Contribution to Educational Measurement and Research Methodology.

**EDITED MONOGRAPHS**

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Izsák, A., Remillard, J., & **Templin, J.** (Eds.) (2016). Psychometric methods in mathematics education: Opportunities, challenges, and interdisciplinary collaborations. *Journal of Research in Mathematics Education* Monograph Series No. 15. Reston, VA: National Council of Teachers of Mathematics. (Peer-reviewed)

**PEER -REVIEWED PAPERS (\* INDICATES WORK WITH ADVISEES, POSTDOCS, OR STUDENTS)**

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- \*Yamaguchi, K. & **Templin, J.** (in press). Direct estimation of diagnostic classification model attribute mastery profiles via a collapsed Gibbs sampling algorithm. *Psychometrika*. DOI: 10.1007/s11336-022-09857-7
- \*Brown C. & **Templin, J.** (in press). Modification indices for diagnostic classification models. *Multivariate Behavioral Research*. DOI: 10.1080/00273171.2022.2049672
- \*Exum, A., **Templin, J.**, & Fazzino, T. (in press). Bridging gaps by including culture: Development and empirical test of the culturally informed theory for disordered eating among black women. *Eating Behaviors*. DOI: 10.1016/j.eatbeh.2022.101600
- \*Warlick, C., Poquiz, J. L., Huffman, J.M., Armstrong, A., Krieshok, T.S., Frey, B.B., **Templin, J.**, Kerr, B.A., Moffitt-Carney, K., Delong, L., Schellenger, B., & Nelson, J. (in press). Psychometric properties of the Integrative Hope Scale's English translation in a mixed-diagnostic community health sample. *Psychiatric Rehabilitation Journal*. DOI: 10.1037/prj0000503
- \*Zhang, J., **Templin, J.**, & Mintz, C. (2022). A model comparison approach to posterior predictive model checks in Bayesian confirmatory factor analysis. *Structural Equation Modeling: A Multidisciplinary Journal*, 29, 339-349. DOI: 10.1080/10705511.2021.2012682
- \*Martinez, A., **Templin, J.**, Mintz, C., Hicks, T., & Pace, J. (2022). Enabling computer adaptive assessments for slider-bar item types with the three-part beta measurement model. *Multivariate Behavioral Research*, 57, 166. DOI: 10.1080/00273171.2021.2011696
- \*Hu, B., **Templin, J.**, & Hoffman, L. (2022). Modeling psychometric relational data in social networks: Latent interdependence models. *Frontiers in Psychology-Quantitative Psychology and Measurement*. DOI: 10.3389/fpsyg.2022.860837
- \*Yamaguchi, K., & **Templin, J.** (2022). A Gibbs sampling algorithm with monotonicity constraints for diagnostic classification models. *Journal of Classification*, 39, 24-54. DOI: 10.1007/s00357-021-09392-7

- \*Yamaguchi, K., & **Templin, J.** (2022). Observed score reliability indices in diagnostic classification models. *Behaviormetrika*, *49*, 47-68. DOI: 10.1007/s41237-021-00153-9
- \*Converse, G., Curi, M., Oliveira, S., & **Templin, J.** (2021). Estimation of multidimensional item response theory models with correlated latent variables using variational autoencoders. *Machine Learning*, *110(6)*, 1463-1480. DOI: 10.1007/10994-021-06005-7
- Choi, H.-J., Kim, S., Cohen, A. S., **Templin, J.**, & Copur-Gencturk, Y. (2021). Integrating a statistical topic model and a diagnostic classification model for analyzing items in a mixed format assessment. *Frontiers in Psychology*, *11*, 1-11. DOI: 10.3389/fpsyg.2021.769429
- Gergoudis, K., Weinberg, A., **Templin, J.**, Farmer, C., Durkin, A., Weissman, J., Siper, P., Foss-Feig, J., Trelles, M., Bernstein, J. A., Buxbaum, J. D., Berry-Kravis, E., Powell, C. M., Sahin, M., Soorya, L., Thrum, A., & Kolevzon, A. (2020). Psychometric study of the social responsiveness scale in Phelan-McDermid syndrome. *Autism Research*, *13*, 1383-1396. DOI: 10.1002/aur.2299
- Orril, C. H., Cohen, A., Copur-Gencturk, Y., & **Templin, J.** (2020). Revisiting and conceptualization in the design of assessments for teachers of mathematics. *Research in Mathematics Education*, *22*, 209-224. DOI: 10.1080/14794802.1702893
- Johnson, B., **Templin, J.**, & Alobaydi, D. (2020). Iraq's tough governance setting: Examining the importance of institutions vs. self-sacrifice to public service motivation. *Journal of Contemporary Iraq and the Arab World*, *13*, 181-203. DOI: 10.1386/jciaw\_000071
- \*Hu, B., & **Templin, J.** (2020). Using diagnostic classification models to validate attribute hierarchies and evaluate model fit in Bayesian networks. *Multivariate Behavioral Research*, *55*, 300-311. DOI: 10.1080/00273171.2019.1632165
- \*Mintz, C. E., **Templin, J.**, & Zhang, J. (2020). Assessment of item response model-data fit via Bayesian limited information model comparison posterior predictive checks (abstract). *Multivariate Behavioral Research*, *55*, 160. DOI: 10.1080/00273171.2019.1700772
- \*Zhang, J., **Templin, J.**, & Mintz, C. E. (2020). A Bayesian saturated model approach to posterior predictive model checks in confirmatory factor analysis (abstract). *Multivariate Behavioral Research*, *55*, 161-162. DOI: 10.1080/00273171.2019.1700773
- \*Pan, Q., Trang, K., Love, H., & **Templin, J.** (2019). School readiness profiles and growth in academic achievement. *Frontiers in Education: Educational Psychology*, *4*, 1-17. DOI: 10.3389/educ.2019.00127
- \*Qin, L., **Templin, J.**, & Pan, Q. (2019). A comparison between the Bayesian parametric and the semiparametric approach in estimating nonpolynomial instantaneous indirect effect in the structural equation model with ordinal data. *Archives of Psychology*, *3(7)*, 1-25.

- Sharma, A., Pape, S., & **Templin, J.** (2019). Testing the psychometric properties of the modeling self-efficacy scale. *Journal of Educational Research and Practice, 9*, 146-157. DOI: 10.5590/JERAP.2019.09.1.11
- \*Jiang, Z., & **Templin, J.** (2019). Gibbs samplers for logistic item response models via the Pólya-gamma distribution: A computationally efficient data-augmentation strategy. *Psychometrika, 84*, 358-374. DOI: 10.1007/s11336-018-9641-x
- Carragher, N. **Templin, J.**, Jones, P., Shulruf, B., & Velan, G. (2019). Digital Module 04: Diagnostic measurement checklists for practitioners. *Educational Measurement: Issues and Practice*. DOI: 10.1111/emip.12251
- Niileksela, C., & **Templin, J.** (2019). Identifying dyslexia with confirmatory latent profile analysis. *Psychology in the Schools, 56*, 335-359. DOI: 10.1002/pits.22183
- Kurth, J. A., Morningstar, M. E., Hicks, T. A., & **Templin, J.** (2018). Exploring the relationship between school transformation and inclusion: A Bayesian multilevel longitudinal analysis. *Inclusion, 6*, 19-32. DOI: 10.1352/2326-6988-6.1.19
- Walters, R., Hoffman, L., & **Templin, J.** (2018). The power to detect and predict individual differences in intra-individual variability using the mixed-effects location-scale model. *Multivariate Behavioral Research, 53*, 360-374. DOI: 10.1080/00273171.2018.1449628
- Blal, I., Singal, M., & **Templin, J.** (2018). Airbnb's effect on hotel sales growth. *International Journal of Hospitality Management, 73*, 85-92. DOI: 10.1016/j.ijhm.2018.02.006
- \*Hu, B., Qin, L., Sullivan, M., and **Templin, J.** (2017). Contemporary approaches to psychometrics: Item response theory and diagnostic classification models. *Culture and Education, 29*, 461-491. DOI: 10.1080/11356405.2017.1367171
- Templin, J.**, Bradshaw, L. P., & Paek, P. (2016). A comprehensive framework for integrating innovated psychometric methodology into educational research. In A. Izsák, J. Remillard, & J. Templin (Eds.), *Psychometric methods in mathematics education: Opportunities, challenges, and interdisciplinary collaborations* (pp. 97-117). *Journal of Research in Mathematics Education Monograph Series No. 15*. Reston, VA: National Council of Teachers of Mathematics.
- Izsák, A., & **Templin, J.** (2016). Coordinating descriptions of mathematical knowledge and psychometric models: Opportunities and challenges. In A. Izsák, J. Remillard, & J. Templin (Eds.), *Psychometric methods in mathematics education: Opportunities, challenges, and interdisciplinary collaborations* (pp. 5-30). *Journal of Research in Mathematics Education Monograph Series No. 15*. Reston, VA: National Council of Teachers of Mathematics.

- \*Watts, A., Walters, R. W., Hoffman, L., **Templin, J.** (2016). Intra-individual variability of physical activity in older adults with and without mild Alzheimer's disease. *PLoS ONE*, *11*(4): e0153898. doi: 10.1371/journal.pone.0153898
- Li, F., Cohen, A., Bottge, B., & **Templin, J.** (2016). A latent transition analysis model for assessing change in cognitive skills. *Educational and Psychological Measurement*, *76*, 181-204. DOI: 10.1177/0013164415588946
- \*Brown, C. J., **Templin, J.**, & Cohen, A. (2015). Comparing the two- and three-parameter logistic models via likelihood ratio tests: A commonly misunderstood problem. *Applied Psychological Measurement*, *39*, 335-348.
- \*Walters, R. W., Hoffman, L., & Templin, J. (2015). The power to detect and predict individual differences in within-person variability using the mixed-effects location-scale model (abstract). *Multivariate Behavioral Research*, *50*, 737. DOI: 10.1080/00273171.2015.1121126
- Watkins, L., DiLillo, D., Hoffman, L., & **Templin, J.** (2015). Do negative emotion and self-control depletion contribute to intimate partner aggression? A lab-based study. *Psychology of Violence*, *5*, 35-45.
- \*Bradshaw, L. P., & **Templin, J.** (2014). Combining scaling and classification: A psychometric model for scaling ability and diagnosing misconceptions. *Psychometrika*, *79*, 403-425.
- Templin, J.**, & Bradshaw, L. P. (2014). Hierarchical diagnostic classification models: A family of models for estimating and testing attribute hierarchies. *Psychometrika*, *79*, 317-339.
- Templin, J.**, & Bradshaw, L. P. (2014). The use and misuse of psychometric models. *Psychometrika*, *79*, 347-354.
- Bradshaw, L., Izsák, A., & **Templin, J.**, Jacobson, E. (2014). Diagnosing teachers' understanding of rational number: Building a multidimensional test within the diagnostic classification framework. *Educational Measurement: Issues and Practice*, *33* (1), 2-14.
- \***Templin, J.**, & Bradshaw, L. (2013). Measuring the reliability of diagnostic classification model examinee estimates. *Journal of Classification*, *30*, 251-275.
- Templin, J.**, & Hoffman, L. (2013). Obtaining diagnostic classification model estimates using Mplus. *Educational Measurement: Issues and Practice*, *32* (2), 37-50.
- Hoffman, L., **Templin, J.**, & Rice, M. (2012). Linking outcomes from Peabody Picture Vocabulary Test forms using item response models. *Journal of Speech, Language, and Hearing Research*, *55*, 754-763.
- \*Alexeev, N., **Templin, J.**, & Cohen, A. (2011). Spurious latent classes in the mixture Rasch model. *Journal of Educational Measurement*, *48*, 313-332.



- Henson, R., **Templin, J.**, & Willse, J. (2009). Defining a family of cognitive diagnosis models using log linear models with latent variables. *Psychometrika*, *74*, 191-210.
- Silvia, P., Henson, R., & **Templin, J.** (2009). Are the sources of interest the same for everyone? Using multilevel mixture models to explore individual differences in appraisal structures. *Cognition and Emotion*, *23*, 1389-1406.
- Rupp, A., & **Templin, J.** (2009). The (un)usual suspects? A community in search of its identity. *Measurement*, *7*, 115-121.
- Rupp, A., & **Templin, J.** (2008). Unique characteristics of diagnostic models: a review of the current state-of-the-art. *Measurement*, *6*, 219-262.
- Templin, J.**, Henson, R., Templin, S., & Roussos, L. (2008). Robustness of unidimensional hierarchical modeling of discrete attribute association in cognitive diagnosis models. *Applied Psychological Measurement*, *32*, 559-574.
- Rupp, A., & **Templin, J.** (2008). The effects of Q-matrix misspecification on parameter estimates and misclassification rates in the DINA model. *Educational and Psychological Measurement*, *68*, 78-96.
- Hamilton, N., A., Affleck, G., Tennen, H., Karlson, C., Luxton, D., Preacher, K. J., & **Templin, J.** (2008). Fibromyalgia: the role of sleep in affect and in negative event reactivity and recovery. *Health Psychology*, *27*, 490-497.
- Henson, R., **Templin, J.**, & Douglas, J. (2007). Using efficient model based sum-scores for conducting skills diagnoses. *Journal of Educational Measurement*, *44*, 361-376.
- Roussos, L., **Templin, J.**, & Henson, R. (2007). Skills diagnosis using IRT-based latent class models. *Journal of Educational Measurement*, *44*, 293-311.
- Templin, J.**, & Henson, R. (2006). Measurement of psychological disorders using cognitive diagnosis models. *Psychological Methods*, *11*, 287-305.
- Hirshman, E., Meritt, P., Wang, C. C. L., Wierman, M., Budescu, D. V., Kohrt, W., **Templin, J.**, & Bhasin, S. (2004). Androgens and estrogens mediate the effects of dehydroepiandrosterone (DHEA) on cognition in post-menopausal women. *Hormones and Behavior*, *45*, 144-155.

**PUBLISHED REVIEWS, PROCEEDINGS, COLUMNS AND WHITE PAPERS**

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- Templin, J.** (2010, July). Methodology...by committee. *The Score*, *32* (3), 13-14.

Orrill, C. H., Izsák, A., Cohen, A., Templin, J., and Lobato, J. (2010, April). Preliminary observations on teachers' multiplicative reasoning: Insights from the Does it Work and Diagnosing Teachers' Multiplicative Reasoning projects; Technical Report #6. University of Massachusetts Dartmouth Technical Report. Retrieval from [http://www.kaputcenter.umassd.edu/products/technical\\_reports/](http://www.kaputcenter.umassd.edu/products/technical_reports/).

**Templin, J.**, & Hoffman, L. (2010, April). Making consulting count. *The Score*, 32 (2), 7-8.

Wilson, M., Bejar, I., Scalise, K., & **Templin, J.** (2010, January). Perspectives on methodological issues for the assessment of 21<sup>st</sup> century skills. A white paper by the Methodological Issues Working Group of the *Assessment and Teaching of 21<sup>st</sup> Century Skills* Project. Retrieval from <http://atc21s.org/index.php/resources/white-papers/>.

Hoffman, L., & **Templin, J.** (2010, January). Goodness of fit: Finding the tenure track job that suits your talents. *The Score*, 32(1), 12.

**Templin, J.** (2009, July). Focus on early career psychologists. *The Score*, 31(3). 19.

Izsák, A., Lobato, J., Orrill, C. H., Cohen, A. S., & **Templin, J.** (2009, February). Psychometric Models and Assessments of Teacher Knowledge. Proceedings for the Twelfth Special Interest Group of the Mathematical Association of America on Research in Undergraduate Mathematics Education. Paper retrieved July 2, 2009, from <http://rume.org/crume2009/proceedings.html>.

**Templin, J.**, Ho, M.-H., Anderson, C. J., & Wasserman, S. (2003). Mixed effects p\* model for multiple social networks. *2003 Proceedings of the American Statistical Association*, Bayesian Statistical Sciences Section, 4198-4024. Alexandria, VA: American Statistical Association.

**Templin, J.** (2002). Review of the book *Curve ball: Baseball, statistics, and the role of chance in the game*. *Chance*, 15(4), 39-40.

#### **BOOK CHAPTERS (\* INDICATES WORK WITH ADVISEES)**

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Henson, R. A., & **Templin, J.** (2019). The loglinear cognitive diagnosis model. In M. von Davier & Y.-S. Lee (Eds.) *Handbook of diagnostic classification models* (pp. 171-185). Springer. DOI: 10.1007/978-3-030-05584-4\_8

\*Fager, M., Pace, J., & **Templin, J.** (2019). Using Mplus to estimate the loglinear cognitive diagnosis model. In M. von Davier & Y.-S. Lee (Eds.) *Handbook of diagnostic classification models* (pp. 581-591). Springer. DOI: 10.1007/978-3-030-05584-4\_28

\*Sullivan, M., Lao, H., & **Templin, J.** (2018). Diagnostic measurement. In M. Sokele & L. Moutinho (Eds.) *Innovative Research Methods in Management, Volume 1*. Palgrave MacMillan. DOI: 10.1007/978-3-319-64394-6\_5

- Templin, J.** (2016). An overview of item response theory. In S. K. Whitbourne (Ed.), *The Encyclopedia of Adulthood and Aging* (pp. 699-704). West Sussex: Wiley.
- Templin, J.** (2015). Diagnostic assessment: Methods for the reliable measurement of multidimensional abilities. In F. Drasgow (Ed.), *Technology in Testing: Measurement Issues* (pp. 285-304). New York: Taylor and Francis.
- Templin, J., & Jiao, H.** (2012). Applying model-based approaches to identify performance category classifications. In G. Cizek (Ed.), *Setting performance standards: Theory and application* (2<sup>nd</sup>. Ed., pp. 379-398). New York, NY: Routledge.
- Ackerman, T., Henson, R., Luecht, R., Willse, J., & **Templin, J.** (2012). Applying computer-based assessment using diagnostic modeling to benchmark tests. In R. Lissitz & H. Jiao (Eds.), *Computers and their impact on state assessments* (pp. 227-244). Charlotte, NC: Information Age Publishing.
- Wilson, M., Bejar, I., Scalise, K., **Templin, J.**, William, D., & Torres Iribara, D. (2012). Perspectives on methodological issues. In P. Griffin, B. McGaw, and E. Care (Eds.) *Assessment and teaching of 21<sup>st</sup> century skills* (pp. 67-141). New York, NY: Springer.
- Roussos, L., DiBello, L., Henson, R., Jang, E., & **Templin, J.** (2010). Skills diagnosis for education and psychology with IRT-based parametric latent class models (pp. 35-70). In S.E. Embretson (Ed.), *Measuring psychological constructs: Advances in model-based approaches*. Washington, DC: American Psychological Association.
- Templin, J.** (2008). Methods for detecting subgroups in social networks. In N. A. Card, J. P. Selig, & T. D. Little (Eds.), *Modeling dyadic and interdependent data in developmental research* (pp. 309-334). New York, NY: Routledge.
- Roussos, L., DiBello, L., Stout, W., Hartz, S., Henson, R., & **Templin, J.** (2007). The Fusion Model skills diagnosis system. In J. Leighton and M. Gierl (Eds.), *Cognitive diagnostic assessment in education* (pp. 275-318). New York, NY: Cambridge University Press.
- TECHNICAL REPORTS**
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- Henson, R., Roussos, L., & **Templin, J.** (2005). *Fusion model "fit" indices*. External Diagnostic Research Group Technical Report.
- Henson, R., Stout, W., & **Templin, J.** (2005). *Using cognitive model-based sum-scores to do skills diagnosis*. External Diagnostic Research Group Technical Report.
- Henson, R., & **Templin, J.** (2005). *Hierarchical log-linear modeling of the joint skill distribution*. External Diagnostic Research Group Technical Report.
- Henson, R., & **Templin, J.** (2005). *Q-matrix robustness for Arpeggio System analysis of the fusion model*. External Diagnostic Research Group Technical Report.

- Roussos, L., **Templin, J.**, & Henson, R. (2005). *Theoretically grounded linking and equating for mastery/non-mastery skills diagnosis models*. External Diagnostic Research Group Technical Report.
- Templin, J.**, Roussos, L., Templin, S., & Henson, R. (2005). *Comparison of latent attribute joint distribution estimation methods*. External Diagnostic Research Group Technical Report.
- Templin, J.**, & Henson, R. (2005). *The random effects reparameterized unified model: a model for joint estimation of discrete skills and continuous ability*. External Diagnostic Research Group Technical Report.
- Templin, J.**, & Henson, R. (2005). *Hierarchical models for skills diagnosis: item response theory comparisons and complements*. External Diagnostic Research Group Technical Report.
- Templin, J.**, Henson, R., Roussos, L., & Stout, W. (2005). *The enhanced simarpeggulator for heterogeneous attributes*. External Diagnostic Research Group Technical Report.
- Henson, R., Roussos, L., & **Templin, J.** (2004). *Cognitive diagnostic fit indices*. External Diagnostic Research Group Technical Report.
- Henson, R., & **Templin, J.** (2004). *Creating a proficiency scale with models for cognitive diagnosis*. External Diagnostic Research Group Technical Report.
- Henson, R., & **Templin, J.** (2004). *Modifications of the Arpeggio algorithm to permit analysis of NAEP*. External Diagnostic Research Group Technical Report.
- Henson, R., **Templin, J.**, et al. (2004). *Proposed Arpeggio algorithm improvements: description, implementation, and evaluation*. External Diagnostic Research Group Technical Report.
- Henson, R., **Templin, J.**, & Porch, F. (2004). *Description of the underlying algorithm of Arpeggio 1.3.1m: an approach to handle missing data at random*. External Diagnostic Research Group Technical Report.
- Henson, R., **Templin, J.**, & Porch, F. (2004). *Description of the underlying algorithm of Polyarpeggiopoly 1.3.4*. External Diagnostic Research Group Technical Report.
- Roussos, L., **Templin, J.**, Xu., X., & Douglas, J. (2004). *Effect of skill heterogeneity on fusion model equation: a comparison of two methods*. External Diagnostic Research Group Technical Report.
- Templin, J.**, & Henson, R. (2004). *Proficiency scaling*. External Diagnostic Research Group Technical Report.

**Templin, J.** (2004). *Estimation of the RUM without alpha tilde: a general model for the proficiency space of examinee ability*. External Diagnostic Research Group Technical Report.

**Templin, J., & Douglas, J.** (2004). *Higher order RUM*. External Diagnostic Research Group Technical Report.

**Templin, J., & Douglas, J.** (2004). *Fast classification*. External Diagnostic Research Group Technical Report.

**Templin, J., Henson, R., Roussos, L., & Templin, S.** (2004). *Characteristics of and modifications to the RUM completeness term*. External Diagnostic Research Group Technical Report.

**Templin, J., Henson, R., Templin, S., & Roussos, L.** (2004). *Robustness of unidimensional hierarchical modeling of discrete attribute association in cognitive diagnosis models*. External Diagnostic Research Group Technical Report.

Templin, S., **Templin, J., & Henson, R.** (2004). *Fast calibration*. External Diagnostic Research Group Technical Report.

Henson, R., Roussos, L., Stout, W., Douglas, J., He, X., & **Templin, J.** (2003). *Estimation of attribute association*. External Diagnostic Research Group Technical Report.

Henson, R., **Templin, J., & Porch, F.** (2003). *Description of the underlying algorithm of Arpeggio 1.3*. External Diagnostic Research Group Technical Report.

**Templin, J., He, X., Roussos, L., & Stout, W.** (2003). *The pseudo-item method: a simple technique for analysis of polytomous data with the fusion model*. External Diagnostic Research Group Technical Report.

**Templin, J., Roussos, L., & Stout, W.** (2003). *An extension of the current fusion model to treat polytomous attributes*. External Diagnostic Research Group Technical Report.

**PRESENTATIONS (\* INVITED TALK; \*\*WORK WITH ADVISEES, POSTDOCS, OR STUDENTS)**

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\*\*Martinez, A., **Templin, J., Mintz, C., Hicks, T., & Pace, J.** (2021, October). *Enabling computer adaptive assessments for slider-bar item types with the three-part beta measurement model*. Poster presented at the annual meeting of the Society of Multivariate Behavioral Psychology, held online.

**Templin, J., Hoffman, L., Hicks, T., & Walters, R.** (2021, April). *Investigating the impact of residualized likelihoods in Bayesian multilevel models*. Paper presented at the annual meeting of the American Educational Research Association, held online.

- \*\*Kwon, T. Y., Huggins-Manley, A. C., **Templin, J.**, Zheng, M. (2021, June). *Modeling hierarchical attribute structures in diagnostic classification models with multiple attempts*. Paper presented at the annual meeting of the National Council on Measurement in Education, held online.
- \*\*Mintz, C., & **Templin, J.** (2021, June). *Incorporating response choice in CD-CAT with a multidimensional Bayesian nominal response model*. Paper presented at the annual meeting of the National Council on Measurement in Education, held online.
- \*\*Mintz, C., **Templin, J.**, & Zhang, J. (2021, June). *A Bayesian limited information approach to diagnostic classification model-data fit*. Paper presented at the annual meeting of the National Council on Measurement in Education, held online.
- \***Templin, J.** (2021, July). *Building a diagnostic model-based formative assessment system for personalizing educational progress*. Keynote address given to the International Test Commission 2021 Colloquium, held online.
- \*\*Kwon, T. Y., Huggins-Manley, A. C., **Templin, J.**, & Zheng, M. Y. (2020, November). *The development and evaluation of a sequential hierarchical diagnostic classification model*. Paper presented at the virtual forum of the Florida Educational Research Association.
- Huggins-Manley, A. C., Goodwin, A. P., **Templin, J.**, Benedict, A. E., Kwon, T. Y., & Zheng, M. (2020, March). *Works in progress: Project DIMES- Diagnostic Instrument for Morphology of Elementary Students*. Poster presented at the annual meeting of the Society for Research on Educational Effectiveness, Arlington, VA.
- \*\*Kwon, T. Y., Huggins-Manley, A. C., Benedict, A. E., **Templin, J.**, & Goodwin, A. P. (2019, November). *Involving teachers in evidence-centered design development of a classroom assessment*. Paper presented at the annual meeting of the Florida Educational Research Association in St. Petersburg, FL.
- \*\*Mintz, C., **Templin, J.**, & Zhang, J. (2019, October). *Assessment of item response model-data fit via Bayesian limited information model comparison posterior predictive checks*. Poster presented at the annual meeting of the Society of Multivariate Experimental Psychology in Baltimore, MD.
- \*\*Zhang, J., **Templin, J.**, & Mintz, C. (2019, October). *A Bayesian saturated model approach of posterior predictive model checks in confirmatory factor analysis*. Poster presented at the annual meeting of the Society of Multivariate Experimental Psychology in Baltimore, MD.
- \*\*Fager, M., & **Templin, J.** (2019, April). *Within-item interactions in bifactor models for ordered-categorical item responses*. Paper presented at the annual meeting of the National Council on Measurement in Education in Toronto, Ontario, Canada.

- \*\*Exum, A. C., Forbush, K. T., & **Templin, J.** (2018, October). *Stuck in the middle again: A latent trait analysis using DSM-5 eating disorder criteria in a community sample*. Poster presented at the annual meeting of the Eating Disorders Research Society in Sydney, Australia.
- \*\*Alanazi, A., & **Templin, J.** (2018, June). *Using structural equation modeling to evaluate the social presence model*. Paper presented at the annual meeting of the International Society for Technology in Education in Chicago, IL.
- \*\*Ramler, P., Livingston, D., & **Templin, J.** (2018, April). *Using a diagnostic model pretest to evaluate mathematics skills in middle school*. Electronic board presented at the annual meeting of the National Council on Measurement in Education in New York, NY.
- Hoffman, L., & **Templin, J.** (2017, October). *Systematically varying effects in multilevel models are indeed permissible*. Paper presented at the annual meeting of the Society of Multivariate Experimental Psychology in Minneapolis, MN.
- \***Templin, J.** (2017, September). *From research to the classroom (and back): Bettering assessment practice and policy*. Robert L. Linn Memorial Lecture at the University of Colorado-Boulder.
- \*\***Templin, J.** & Qin, L. (2017, April). *Two-stage estimation of Bayesian network and diagnostic classification model structural parameters*. Paper presented at the annual meeting of the National Council on Measurement in Education in San Antonio, TX.
- \*\*Sullivan, M. & **Templin, J.** (2017, April). *Comparing DCM and Bayes nets approaches for modeling testlet-based data*. Paper presented at the annual meeting of the National Council on Measurement in Education in San Antonio, TX.
- \*\*Hu, B. & **Templin, J.** (2017, April). *Using diagnostic classification models to detect model misspecifications in Bayesian networks*. Paper presented at the annual meeting of the National Council on Measurement in Education in San Antonio, TX.
- Matlock, K. & **Templin, J.** (2017, April). *Using multidimensional models to assess dimensionality of technology-enhanced items*. Electronic poster presented at the annual meeting of the National Council on Measurement in Education in San Antonio, TX.
- Broaddus, A., Kaplan, J., & **Templin, J.** (2017, January). *Math EAGER: Developing a learning map for introductory statistics*. Poster presented at the annual Joint Mathematics Meetings in Atlanta, GA.
- \***Templin, J.** (2016, November). *Aligning new psychometric methods with new policy to better inform both instruction and accountability*. Keynote address given to the annual meeting of the Florida Educational Research Association in Lakeland, FL.

- \*\*Broaddus, A., Sullivan, M., & Templin, J.** (2016, April). *Examining effects of pictorial fraction models on student test responses*. Paper presented at the annual meeting of the National Council on Measurement in Education in Washington, DC.
- \*\*Chen, F., Templin, J., & Skorupski, W.** (2016, April). *Evaluation of learning map structure using diagnostic classification modeling and Bayesian networks*. Paper presented at the annual meeting of the National Council on Measurement in Education in Washington, DC.
- \*\*Lao, H., & Templin, J.** (2016, April). *Estimation of diagnostic classification models without constraints: Issues with class label switching*. Paper presented at the annual meeting of the National Council on Measurement in Education in Washington, DC.
- Bradshaw, L., & Templin, J.** (2014, October). *The little model that couldn't: how the DINA model misclassifies students, hides important effects, and should never be used*. Paper presented at the annual meeting of the Northeastern Educational Research Association in Trumbull, CT.
- Forte, E. Valenín, H., Greninger, E., Templin, J., & Patelis, T.** (2014, October). *Integrating embedded assessment, curriculum design, and professional development to support student learning*. Symposium presented at the annual meeting of the Northeastern Educational Research Association in Trumbull, CT.
- Templin, J.** (2014, October). *AbNormal psychometrics: disentangling non-normal latent variables from non-normal data*. Paper presented at annual meeting of the Society of Multivariate Experimental Psychology in Nashville, TN.
- \*Templin, J.** (2014, July). *AbNormal psychometrics: measurement of rare, skewed, and otherwise irregular latent variables*. Invited talk: Annual meeting of the Psychometric Society in Madison, WI.
- \*\*Brown, C. & Templin, J.,** (2014, April). *Diagnostic classification model modification indices*. Paper presented at the annual meeting of the National Council on Measurement in Education in Philadelphia, PA.
- \*Templin, J., Hoffman, L., Sullivan, M., & Walters, R.** (2014, March). *Heterogeneous variance classification models for psychiatric assessment survey data*. Paper presented at the annual meeting of the International Biometric Society: Eastern North American Region in Baltimore, MD.
- \*Templin, J.** (2013, April). *The continuing evolution of cognition and assessment in K-12: A retrospective and a look ahead*. Paper presented at the annual meeting of the American Educational Research Association in San Francisco, CA.



- Templin, J.**, & Bradshaw, L. (2013, April). *Deciding among psychometric approaches: motivations for and benefits of choosing from a multitude of modeling options*. Paper presented at the annual meeting of the American Educational Research Association in San Francisco, CA.
- Rupp, A., **Templin, J.**, & Henson, R. (2013, April). *An introduction to the theory, methods, and applications of diagnostic measurement*. Paper presented at the annual meeting of the American Educational Research Association in San Francisco, CA.
- \*\*Ferster, A., & **Templin, J.** (2013, April). *An evaluation of item design features via a random effects extension of the linear logistic test model*. Paper presented at the annual meeting of the National Council on Measurement in Education in San Francisco, CA.
- \*\*Walters, R., **Templin, J.**, & Hoffman, L. (2013, April). *The effects of interdependent data on item calibration*. Poster presented at the annual meeting of the National Council on Measurement in Education in San Francisco, CA.
- Watkins, L. E., Maldonado, R. C., Hoffman, L., **Templin, J.** & DiLillo, D. (2012, November). *Couple-level analysis of intimate partner aggression following conflict: The contributions of emotion reactivity and self-control depletion*. Paper presented at the 46<sup>th</sup> Annual Convention of the Association for Behavior and Cognitive Therapies, National Harbor, MD.
- \***Templin, J.** (2012, April). *Answering the psychometric challenges of measuring student progress longitudinally through interim, formative, and summative assessment*. Invited talk: Advances in Psychometrics Session at the annual meeting of the National Council on Measurement in Education in Vancouver, BC.
- Bradshaw, L., **Templin, J.**, & Iszák, A. (2012, April). *A diagnostic assessment of teachers' understandings of rational number*. Paper presented at the annual meeting of the American Educational Research Association in Vancouver, BC.
- Bradshaw, L., **Templin, J.** (2012, April). *A two-parameter asymptote IRT model for binary data*. Paper presented at the annual meeting of the National Council on Measurement in Education in Vancouver, BC.
- \*\*Jenkins, C., **Templin, J.**, & Cohen, A. (2012, April). *Comparing the two- and three-parameter logistic models via likelihood ratio tests: a commonly misunderstood problem*. Paper presented at the annual meeting of the National Council on Measurement in Education in Vancouver, BC.
- \*\*Koziol, N., & **Templin, J.** (2012, April). *Quantifying the impact of misusing examinee latent variable estimates in item response models*. Paper presented at the annual meeting of the National Council on Measurement in Education in Vancouver, BC.

- \*\*Nixon, C., Ferster, A., Alagoz, C., & **Templin, J.** (2012, April). *A multilevel diagnostic model for GKIDS performance ratings*. Poster presented at the annual meeting of the National Council on Measurement in Education in Vancouver, BC.
- \***Templin, J.**, Kingston, N., & Wang, W. (2011, October). *Psychometric issues in formative assessment: measuring student learning throughout an academic year using interim assessments*. Invited talk for the 11<sup>th</sup> annual Maryland Assessment Conference in College Park, MD.
- \***Templin, J.**, (2011, October). *Diagnostic modeling: psychometric issues and statistical challenges*. Invited talk. Department of Statistics, University of South Carolina.
- \***Templin, J.**, (2011, September). *Conceptual foundations of diagnostic measurement*. Invited talk, Interdisciplinary Conferences on Assessment in K-12 Mathematics: Collaborations between Mathematics Education and Psychometrics in Atlanta, GA.
- \*\*Sen, S., Cohen, S. A., Kim, S., & **Templin, J.** (2011, August). *Comparative analysis of common statistical models used for value-added assessment of school performance*. Poster presented at the annual meeting of the American Psychological Association in Washington, DC.
- \*\***Templin, J.** & Bradshaw, L. (2011, April). *A hypothesis test for attribute hierarchies in diagnostic classification models*. Paper presented at the annual meeting of the National Council on Measurement in Education in New Orleans, LA.
- \*\*Bradshaw, L., & **Templin, J.** (2011, April). *A nominal response model for scaling ability and diagnosing misconceptions*. Paper presented at the annual meeting of the National Council on Measurement in Education in New Orleans, LA.
- \*\*Bradshaw, L., & **Templin, J.** (2010, July). *Combining scaling and classification: A model for scaling ability and diagnosing misconceptions with nominal response item types*. Paper presented at the annual meeting of the Psychometric Society in Athens, GA.
- \*\*Alexeev, N., **Templin, J.**, & Cohen, A. (2010, July). *Model selection: Mixture Rasch model versus mixture 2PL*. Paper presented at the annual meeting of the Psychometric Society in Athens, GA.
- \*\*Choi, H.-J., & **Templin, J.** (2010, July). *Missing data in diagnostic classification models: A Monte Carlo study*. Paper presented at the annual meeting of the Psychometric Society in Athens, GA.
- \***Templin, J.** (2010, April). *Diagnostic Measurement: Methods for the reliable assessment of multiple abilities or traits*. Invited talk, College of Education, Georgia State University.

- Templin, J.** (2010, April). *Classification model based standard setting methods*. Paper presented at the annual meeting of the National Council on Measurement in Education in Denver, Colorado.
- \*\*Alexeev, N., Templin, J., & Cohen, A.** (2010, April). *Detecting spurious latent classes with the mixture Rasch model*. Paper presented at the annual meeting of the National Council on Measurement in Education in Denver, Colorado.
- \*\*Choi, H.-J., Templin, J., Cohen, A., & Atwood, C.** (2010, April). *The impact of model misspecification on estimation accuracy in diagnostic classification models*. Paper presented at the annual meeting of the National Council on Measurement in Education in Denver, Colorado.
- Wolkowitz, A., Templin, J., & Kingston, N.** (2010, April). *An analysis of the time and day of the week that student perform best on assessments*. Paper presented at the annual meeting of the National Council on Measurement in Education in Denver, Colorado.
- Bandalos, D., & Templin, J.** (2010, April). *An investigation of the assumptions of the robust weighted least squares estimator in categorical latent variable models*. Paper presented at the annual meeting of the American Educational Research Association in Denver, Colorado.
- \*Templin, J., & Henson, R.** (2009, December). *Extracting diagnostic information from existing large scale tests*. Invited talk, Department of Psychology, Georgia Institute of Technology.
- Bandalos, D., & Templin, J.** (2009, October). *An investigation of the assumptions of the robust weighted least squares estimator in latent variable models for categorical data*. Paper presented at the annual meeting of the Society for Multivariate Experimental Psychology in Shalishan, Oregon.
- \*Templin, J.** (2009, July). *On the origin of species: the evolution of diagnostic modeling within the psychometric taxonomy*. State-of-the-art talk presented at the annual meeting of the Psychometric Society in Cambridge, England.
- \*\*Choi, H.-J., Templin, J., Henson, R., & Cohen, A.** (2009, July). *A diagnostic classification mixture Rasch model (DCMixRM)*. Paper presented at the annual meeting of the Psychometric Society in Cambridge, England.
- Henson, R., & Templin, J.** (2009, April). *Using diagnostic model criteria as proficiency standards: combining psychometrics and statistics to produce accurate examinee classification*. Paper presented at the annual meeting of the National Council on Measurement in Education in San Diego, California.

- \*Templin, J.** (2009, June). *Classification-based psychological measurement via confirmatory mixture models*. Paper presented at the annual meeting of the Classification Society of North America in St. Louis, Missouri.
- \*\*Choi, H.-J., Templin, J., Henson, R., & Cohen, A.** (2009, April). *A diagnostic classification mixture Rasch model (DCMixRM) for mediating attributes and ability*. Paper presented at the annual meeting of the National Council on Measurement in Education in San Diego, California.
- \*\*Cohen, A., Templin, J., & Bradshaw, L.** (2009, April). *Beyond unidimensionality: measuring all of achievement*. Paper presented at the annual meeting of the National Council on Measurement in Education in San Diego, California.
- Henson, R., **Templin, J.**, & Irwin, P. (2009, April). *Ancillary random effects: a way to obtain diagnostic information from existing large scale tests*. Paper presented at the annual meeting of the National Council on Measurement in Education in San Diego, California.
- Templin, J.**, & Henson, R. (2009, April). *Measuring the reliability of diagnostic model examinee estimates*. Paper presented at the annual meeting of the National Council on Measurement in Education in San Diego, California.
- Templin, J.**, Henson, R., Douglas, J., & Hoffman, L. (2009, April). *Estimating a family of diagnostic classification models with Mplus*. Paper presented at the annual meeting of the American Educational Research Association in San Diego, California.
- Templin, J.**, & Hoffman, L. (2008, August). *Employing non-normal random effects in multilevel models*. Poster presented at the annual meeting of the American Psychological Association in Boston, Massachusetts.
- Hoffman, L., & **Templin, J.** (2008, August). *The impact of alternative specifications of time on examining individual differences in change*. Poster presented at the annual meeting of the American Psychological Association in Boston, Massachusetts.
- \*Templin, J.**, & Henson, R. (2008, April). *Understanding the impact of skill acquisition: relating diagnostic assessments to measureable outcomes*. Paper presented at the University of North Carolina at Greensboro mini-conference on cognitive diagnosis.
- \*\*Li, F., Templin, J., & Cohen, A.** (2008, March). *A relaxed higher order DINA model for attribute-level DIF*. Paper presented at the annual meeting of the National Council on Measurement in Education in New York, New York.
- Templin, J.**, Cohen, A., and Henson, R. (2008, March). *Constructing tests for optimal classification in standard setting*. Paper presented at the annual meeting of the National Council on Measurement in Education in New York, New York.

Cho, S.-J., Cohen, A., & **Templin, J.** (2008, March). *Multidimensional mixture IRT model for DIF analysis*. Paper presented at the annual meeting of the National Council on Measurement in Education in New York, New York.

**\*\*Templin, J.,** Henson, R., Rupp, A., Jang, E., & Ahmed, M. (2008, March). *Cognitive diagnosis models for nominal response data*. Paper presented at the annual meeting of the National Council on Measurement in Education in New York, New York.

**\*\*Henson, R., Templin, J.,** Burke, M., Willse, J. (2008, March). *Estimation of the log-linear model with latent classes for the purpose of cognitive diagnosis*. Paper presented at the annual meeting of the National Council on Measurement in Education in New York, New York.

**\*\*Burke, M. Henson, R., Templin, J.** (2008, March). *Assessing English proficiency with the logistic cognitive diagnosis model*. Paper presented at the annual meeting of the National Council on Measurement in Education in New York, New York.

Willse, J., Henson, R., & **Templin, J.** (2008, March). *K-means with latent class refinement: Cognitive diagnosis with few assumptions*. Paper presented at the annual meeting of the National Council on Measurement in Education in New York, New York.

Henson, R., & **Templin, J.** (2008, March). *Implementation of standards setting for a geometry end-of-course exam*. Paper presented at the annual meeting of the American Educational Research Association in New York, New York.

**Templin, J.,** & Henson, R. (2008, March). *Understanding the impact of skill acquisition: relating diagnostic assessments to measurable outcomes*. Paper presented at the annual meeting of the American Educational Research Association in New York, New York.

**\*\*Templin, J.,** Hoffman, L., & Lorenz, F. (2007, November). *Assessing fit in models for population heterogeneity of developmental trajectories*. Paper presented at the annual meeting of the Gerontological Society of America in San Francisco, California.

Bandalos, D., & **Templin, J.** (2007, October). *Six (plus or minus two) degrees of separation: SMEP social networks*. Paper presented at the annual meeting of the Society for Multivariate Experimental Psychology in Chapel Hill, North Carolina.

**\*Templin, J.** (2007, October). *Assessing cognitive diagnosis model fit using limited information methods*. Paper presented at the International Conference on Advances in Interdisciplinary Statistics and Combinatorics in Greensboro, North Carolina.

**\*Templin, J.,** & Henson, R. (2007, September). *Extending cognitive diagnosis models to evaluate the validity of DSM criteria for the diagnosis of pathological gambling*. Invited talk, Department of Psychology, Georgia Institute of Technology.

**\*\*Templin, J.,** Poggio, A., Irwin, P., & Henson, R. (2007, May). *Latent class model based approaches to standard setting*. Poster presented at the Festschrift for Barbara Plake conference in Lincoln, Nebraska.

**\*\*Templin, J.,** Poggio, A., Irwin, P., & Henson, R. (2007, April). *Latent class model based approaches to standard setting*. Paper presented at the annual meeting National Council on Measurement in Education conference in Chicago, Illinois.

Wolkowitz, A., **Templin, J.,** & Twing, J. (2007, April). *When to test: Before or after lunch? Before or after spring break? Tuesday or Friday?* Paper presented at the annual meeting of the National Council on Measurement in Education in Chicago, Illinois.

**\*\*Templin, J.,** Henson, R., Poggio, A., Irwin, P., Poggio, J., & Glasnapp, D. (2007, April). *Searching for cognitive structure in Kansas*. Paper presented at the annual meeting of the National Council on Measurement in Education in Chicago, Illinois.

**Templin, J.,** & Henson, R. (2007, April). *Contrasting parameterizations of the proficiency space in models for skills assessment*. Paper presented at the annual meeting of the National Council on Measurement in Education in Chicago, Illinois.

Henson, R., & **Templin, J.** (2007, April). *Importance of Q-matrix construction and its effects cognitive diagnosis model results*. Paper presented at the annual meeting of the National Council on Measurement in Education in Chicago, Illinois.

Willse, J., Henson, R., & **Templin, J.** (2007, April). *Using sum scores or IRT in place of cognitive diagnosis models: Can existing or more familiar models do the job?* Paper presented at the annual meeting of the National Council on Measurement in Education in Chicago, Illinois.

**\*\*Staggs, V.,** Ledford, E., **Templin, J.,** & Henson, R. (2007, April). *Evaluating diagnostic model Q-matrix completeness using conditional covariance*. Poster presented at the annual meeting of the National Council on Measurement in Education in Chicago, Illinois.

**Templin, J.,** & Henson, R. (2006, June). *The random effects reparameterized unified model: A constrained finite mixture model for skills diagnosis and psychological assessment*. Paper presented at the annual meeting of the Psychometric Society in Montréal, Quebec.

Henson, R., & **Templin, J.** (2006, June). *The DINO: A disjunctive model for skills assessment*. Paper presented at the annual meeting of the Psychometric Society in Montreal, Quebec.

Henson, R., & **Templin, J.** (2006, April). *Bayesian Q-matrix inference using the Reparameterized Unified Model*. Paper presented during the annual meeting of the National Council on Measurement in Education in San Francisco, California.

**Templin, J., & Henson, R.** (2006, April). *A Bayesian method for incorporating uncertainty into Q-matrix estimation in skills assessment*. Paper presented during the annual meeting of the National Council on Measurement in Education in San Francisco, California.

**\*\*Ivie, J., & Templin, J.** (2006, April). *Analysis of the Raven's Progressive Matrices (RPM) scale using skills assessment*. Paper presented during the annual meeting of the National Council on Measurement in Education conference in San Francisco, California.

**\*\*Ivie, J., & Templin, J.** (2006, April). *Local optima in cognitive diagnosis models*. Poster presented during the annual meeting of the National Council on Measurement in Education in San Francisco, California.

**\*\*Kupzyk, K., & Templin, J.** (2006, April). *Multithreaded algorithms for scalable estimation of cognitive diagnosis models*. Poster presented during the annual meeting of the National Council on Measurement in Education in San Francisco, California.

**\*\*Ledford, E., & Templin, J.** (2006, April). *Incorporating multiple opinions of test construction experts into cognitive diagnosis Model Q-matrix construction*. Poster presented during the annual meeting of the National Council on Measurement in Education in San Francisco, California.

**Templin, S., Templin, J., & Marquis, J.** (2006, April). *Statistical properties of age equivalent scores*. Poster presented during the annual meeting of the National Council on Measurement in Education in San Francisco, California.

**Henson, R., & Templin, J.** (2006, February). *Extending cognitive diagnosis models to evaluate the validity of DSM criteria for the diagnosis of pathological gambling*. Poster presented at the Georgia Institute of Technology New Directions in Psychological Measurement with Model-Based Approaches conference in Atlanta, Georgia.

**Templin, J., & Henson, R.** (2006, February). *Using cognitive diagnosis models for the measurement and evaluation of pathological gambling*. Poster presented at the Georgia Institute of Technology New Directions in Psychological Measurement with Model-Based Approaches conference in Atlanta, Georgia.

**\*Templin, J., & Henson, R.** (2006, February). *Practical adaptations of cognitive diagnosis models*. Invited talk, Department of Educational Research Methodology, The University of North Carolina, Greensboro.

**Henson, R., & Templin, J.** (2005, December). *Extending cognitive diagnosis models to evaluate the validity of DSM criteria for the diagnosis of pathological gambling*. Poster presented at the annual meeting of the National Council for Responsible Gaming: Gambling and Addiction in Las Vegas, Nevada. Awarded top research prize.

- Ackerman, T., Bartz, D., Henson, R., & **Templin, J.** (2005, July). *Creating and evaluating a third grade science benchmark test using a cognitive diagnosis model*. Paper presented at the annual meeting of the Psychometric Society in Tilburg, The Netherlands.
- DiBello, L., Henson, R., **Templin, J.**, & Almond, R. (2005, July). *Definition and estimation of skills classification reliability*. Paper presented at the annual meeting of the Psychometric Society in Tilburg, The Netherlands.
- Wang, X., & **Templin, J.** (2005, June). *Enhancing score feedback for Accuplacer tests with domain-based information – using elementary algebra as an example*. Paper presented at the annual meeting of the Accuplacer/WritePlacer Plus group.
- Templin, J.**, & Henson, R. (2004, December). *Using cognitive diagnosis models for the measurement and evaluation of pathological gambling*. Poster presented at the annual meeting of the National Council for Responsible Gaming: Gambling and Addiction in Las Vegas, Nevada. Awarded top research prize.
- Templin, J.**, & Henson, R. (2004, November). *Incorporating subjective probability into the design and development of cognitively diagnostic tests*. Poster presented at the annual meeting of the Society for Judgment and Decision Making in Minneapolis, Minnesota.
- Contractor, N., Brandon, D., Huang, M., Palazzolo, E., Steinley, D., Su, C., Suri, R., & **Templin, J.** (2004, November). *Extensions to information retrieval in transactive memory systems*. Paper presented at the annual meeting of the National Communication Association in Chicago, Illinois.
- Templin, J.**, & Henson, R. (2004, September). *Using cognitive diagnosis models to analyze and diagnose psychological disorders*. Invited talk, Department of Psychology at the University of Illinois at Urbana-Champaign.
- DiBello, L., **Templin, J.**, & Henson, R. (2004, June). *Large-scale student profile scoring: Applications to operational tests – next generation TOEFL*. Paper presented at the annual meeting of the Psychometric Society in Pacific Grove, California.
- Ho, A., Zapata, D., & **Templin, J.** (2004, June). *Large-scale student profile scoring: Fast classification and other operational issues for large scale testing*. Paper presented at the annual meeting of the Psychometric Society in Pacific Grove, California.
- Templin, J.**, He, X., Roussos, L., & Bolt, D. (2004, April). *Polytomous (graded response) item and polytomous (graded) attribute scoring*. Paper presented at the annual meeting of the National Council on Measurement in Education in San Diego, California.
- Templin, J.**, Roussos, L., & Stout, W. (2004, March). *Modeling ordered polytomous attributes through ordered dichotomous attributes*. Paper presented at Educational Testing Service, Princeton, New Jersey.



- Templin, J.** (2004, February). *Estimation of the reparameterized unified model using MCMC*. Invited talk, Department of Educational Psychology, the University of Illinois at Urbana-Champaign.
- Templin, J.,** Ho, M.-H., Anderson, C., & Wasserman, S. (2003, August). *Mixed effects  $p^*$  model for multiple social networks*. Paper presented at the annual meeting of the American Statistical Association in San Francisco, California.
- Contractor, N., Palazzolo, E., Su, C., Ruta, D., Brandon, D., Huang, M., & **Templin, J.** (2003, February) *Multi-theoretical multi-level (MTML) models for understanding the emergence of knowledge networks*. Paper presented at the annual meeting of the International Sunbelt Social Network Society, Cancun, Mexico.
- Templin, J.,** Budescu, D., & Wallsten, T. (2002, November). *Improving the quality of probability judgments by performance feedback*. Paper presented at the annual meeting of the Psychonomics Society in Kansas City, Missouri.
- Palazzolo, E., Su, C., Ruta, D., Brandon, D., Huang, M., & **Templin, J.** (2002, September). *Understanding information retrieval between coworkers from a multi-theoretical framework*. Paper presented at the Organizational Communication Mini-Conference, Purdue University, West Lafayette, Indiana.
- Templin, S., **Templin, J.,** & Jones, L. (2000, April). *The ecological validity of computer simulated roulette*. Paper presented at the annual meeting of the Rocky Mountain Psychological Association in Reno, Nevada.
- Templin, J.** (1998, April). *Big effect? Boosting GPA by 10 percent*. Poster presented at the annual meeting of the Western Psychological Association in Albuquerque, New Mexico.

#### ACADEMIC COURSES TAUGHT

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- Clustered Multilevel Models** (PSQF 6272, Fall 2021). University of Iowa: Educational Measurement and Statistics Program.
- Research in Psychometrics** (PSQF 7375, Spring 2021). University of Iowa: Educational Measurement and Statistics Program.
- Diagnostic Testing** (EPSY 932; Fall 2014, Fall 2016; PSQF 7375, Fall 2019). University of Kansas: Department of Educational Psychology: Research Evaluation, Measurement, and Statistics Program, and University of Iowa: Educational Measurement and Statistics Program.
- Bayesian Psychometric Modeling** (PSQF 7375; Spring 2018). University of Iowa: Department of Psychological and Quantitative Foundations: Educational Measurement and Statistics Program.

**Diagnostic Testing** (EPSY 932; Fall 2014, Fall 2016). University of Kansas: Department of Educational Psychology: Research Evaluation, Measurement, and Statistics Program.

**Multivariate Analysis** (EPSY 905; Spring 2018, Spring 2016, Spring 2014). University of Kansas: Department of Educational Psychology: Research Evaluation, Measurement, and Statistics Program.

**Generalized Linear Mixed Models** (EPSY 980; Fall 2015). University of Kansas: Department of Educational Psychology: Research Evaluation, Measurement, and Statistics Program.

**Structural Equation Modeling** (EPSY 906; Spring 2015 and Fall 2017). University of Kansas: Department of Educational Psychology: Research Evaluation, Measurement, and Statistics Program.

**Fundamentals of Multivariate Modeling** (PSYC 943; Fall 2012, Fall 2013). University of Nebraska-Lincoln: Cognitive and Quantitative Program.

**Latent Trait Measurement and Structural Equation Models** (PSYC 948, Spring 2013). University of Nebraska-Lincoln: Cognitive and Quantitative Program.

**Introduction to Structural Equation Modeling** (ERSH 8750; Spring 2012). University of Georgia: Research, Evaluation, Measurement, and Statistics Program.

**Multivariate Methods in Education** (ERSH 8350; Fall 2011). University of Georgia: Research, Evaluation, Measurement, and Statistics Program.

**Advanced Multivariate Statistical Methods** (Summer; 2011). University of Michigan: Interuniversity Consortium for Political and Social Research Summer Program.

**Multilevel Modeling** (EPSY 8990; Spring 2011). University of Georgia: Research, Evaluation, Measurement, and Statistics Program.

**Diagnostic Modeling** (ERSH 9800; Fall 2008). University of Georgia: Research, Evaluation, Measurement, and Statistics Program.

**Applied Correlation and Regression Methods in Education** (ERSH 8320; Fall 2007, Fall 2008) University of Georgia: Research, Evaluation, Measurement, and Statistics Program.

**Applied Analysis of Variance Methods in Education** (ERSH 8310; Fall 2007; Fall 2009). University of Georgia: Research, Evaluation, Measurement, and Statistics Program.

**Statistical Methods in Psychology – II: General Linear Models** (PSYC 791; Spring 2007). University of Kansas: Department of Psychology, Quantitative Program.

**Test Theory: Classical Test Theory, Item Response Theory, and Factor Analysis** (PSYC 890; Spring 2006, Spring 2007). University of Kansas: Department of Psychology, Quantitative Program.

**Statistical Consulting** (PSYC 993; Spring 2007). University of Kansas: Department of Psychology, Quantitative Program.

**Statistical Methods in Psychology – I: Basic Statistics and General Linear Models** (PSYC 790; Fall 2006). University of Kansas: Department of Psychology, Quantitative Program.

**Methods for Clustering and Classification** (PSYC 993; Spring 2006). University of Kansas: Department of Psychology, Quantitative Program.

**Multivariate Analysis** (PSYC 990; Fall 2005). University of Kansas: Department of Psychology, Quantitative Program.

**Applied Regression Analysis** (EPSY 581; Spring 2005). University of Illinois at Urbana-Champaign: Department of Educational Psychology.

#### **STATISTICAL WORKSHOPS TAUGHT**

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**Multilevel Models for Cross Sectional Data** (July, 2015; July, 2014; July, 2013). University of Colorado at Boulder: Interuniversity Consortium for Political and Social Research Summer Short Course.

**Item Response Theory** (July, 2015; July, 2014; July, 2011). University of Michigan: Interuniversity Consortium for Political and Social Research Summer Short Course.

**Item Response Theory** (July, 2012). University of Colorado at Boulder: Interuniversity Consortium for Political and Social Research Summer Short Course.

**Advanced Multivariate Statistical Models** (June, 2012). The University of Georgia: Institute for Interdisciplinary Research in Education and Human Development.

**Introduction to Multilevel Models** (June, 2012). The University of Georgia: Institute for Interdisciplinary Research in Education and Human Development.

**Diagnostic Classification Models** (April, 2014). National Council on Measurement in Education conference in Philadelphia, PA. With Laine Bradshaw.

**Diagnostic Classification Models** (April, 2013). National Council on Measurement in Education conference in San Francisco, CA. With Laine Bradshaw.

**Diagnostic Classification Models** (April, 2012). National Council on Measurement in Education conference in Vancouver, BC. With Laine Bradshaw.

**Diagnostic Classification Models** (April, 2011). American Educational Research Association conference in New Orleans, LA. With Laine Bradshaw.

**Diagnostic Classification Models** (October, 2010). The University of Georgia. With Laine Bradshaw.

**Diagnostic Classification Models** (July, 2009). Metametrics, Incorporated.

**Diagnostic Classification Models** (April, 2009). University of Nebraska-Lincoln.

**Hierarchical Linear Models** (March, 2009). Language testing research colloquium in Denver, Colorado.

**Hierarchical Linear Models** (March, 2008). Measurement Incorporated. With R. Henson.

**Cognitive Diagnosis Mini-Workshop** (April, 2008). University of North Carolina at Greensboro. With T. Ackerman, R. Henson, J. de la Torre, E. Jang, and J. Willse.

**Skills Diagnosis with Latent Variable Models** (April, 2009; March, 2008; April 2007; April 2006; April 2005). National Council on Measurement in Education pre-conference workshop. With J. Douglas, R. Henson, J. de la Torre, and H.-H. Chang.

**Item Response Theory** (July, 2007). American Board of Internal Medicine. With W. Skorupski.

**Item Response Theory** (June, 2007). University of Kansas Summer Institute. With W. Skorupski.

**Skills Diagnosis with Latent Variable Models** (June, 2006). International Meeting of the Psychometric Society pre-conference workshop. With J. Douglas, R. Henson, J. de la Torre, and H.-H. Chang.

**Social Network Analysis** (June, 2003, June 2002). The Interuniversity Consortium for Political and Social Research (ICPSR). With S. Wasserman.

#### **UNIVERSITY OF KANSAS DEPARTMENTAL AND UNIVERSITY SERVICE ROLES**

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- Faculty Fellow: Center for Research Methods and Data Analysis (January 2017-December 2018)
- Co-coordinator: Research, Evaluation, Measurement, and Statistics Program (September 2015-December 2018)
- Member: Center for Research Methods and Data Analysis Advisory Panel (CRMDA; September 2015-December 2018)
- Member: Research Computing Advisory Panel (August 2015-December 2018)
- Departmental Ambassador: Center for Teaching Excellence (August 2014-August 2017)
- Chair: Post Tenure Review Committee; Department of Psychology and Research in Education (August 2014-May 2015)
- Member: Academic misconduct committee (Fall 2015-Spring 2016)

**UNIVERSITY OF IOWA SERVICE**

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- Program coordinator: Educational Measurement and Statistics Program (May 2019-Present)
- Chair: Mary Louise Petersen Search Committee (Fall 2019)
- Member: School Psychology Search Committee (Fall 2020)
- Member: Research Assistant Search Committee (Summer 2021-Spring 2022)
- Member: Educational Psychology and Learning Sciences Search Committee (Fall 2021)
- Member: College of Liberal Arts and Sciences Review Committee (Fall 2021)

## **ACKNOWLEDGEMENTS AND FELLOWSHIPS**

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### **Campus-Wide Recognition for Teaching Excellence**

- Applied Regression Analysis (Spring, 2005, Department of Educational Psychology, University of Illinois at Urbana-Champaign).

### **Best Poster, 2005**

- Henson, R., & **Templin, J.** (2005, December). Extending cognitive diagnosis models to evaluate the validity of DSM criteria for the diagnosis of pathological gambling. Poster presented at the 2005 National Council for Responsible Gaming: Gambling and Addiction conference in Las Vegas, Nevada.

### **Best Poster, 2004**

- **Templin, J.**, & Henson, R. (2004, December). Using cognitive diagnosis models for the measurement and evaluation of pathological gambling. Poster presented at the 2004 National Council for Responsible Gaming: Gambling and Addiction conference in Las Vegas, Nevada.

### **Pre-doctoral Fellow (July 2000 – June 2002)**

- National Institute of Mental Health Quantitative Methods Training Grant. Department of Psychology, University of Illinois at Urbana-Champaign.

**PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

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**Psychometric Society:**

- **Editorial Council Member** (2011 – 2017)
- **Conference Organizer:** 75<sup>th</sup> International Meeting of the Psychometric Society at the University of Georgia in Athens, Georgia (July 2010)
- **Program and Conference Committee Member:** Psychometric Society (2008–2011)

**American Educational Research Association (AERA):**

- **Dissertation Award Committee:** Cognition and Assessment SIG (2019)
- **Program Co-Chair:** Division D, Section 2 – Statistics (2015-2016)
- **Chair and Founding Member:** Cognition and Assessment SIG (2006-2012)
- **Program Chair:** Cognition and Assessment Study Interest Group (2010)
- **Mentoring Committee:** Division D (2008-2010)

**National Council on Measurement in Education (NCME):**

- **Dissertation Award Committee** (2017-Present; Chair: 2021-2022)
- **Awards Committee Member** (2014-2016)
- **Awards Committee Chair** (2016)

**American Psychological Association (APA):**

- **Division 5 Representative:** Early Career Psychologists Network (2008-2010)

**Society of Multivariate Experimental Psychology:**

- **Conference Organizer:** 2023 Annual Meeting in Iowa City, Iowa
- **Member, Board of Trustees** (August 2019 – Present)
- **Coordinating Officer:** (January 2022 – Present)