

Michael D. Toland

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Work Address

University of Kentucky
Educational and Counseling Psychology
243 Dickey Hall
Lexington, KY 40506-0017

EDUCATION

- Ph.D. University of Nebraska-Lincoln
August, 2008 Educational Psychology: Quantitative, Qualitative, & Psychometric Methods
Dissertation: Determining the accuracy of item parameter standard error of estimates in BILOG-MG 3
- M.A. University of Nebraska-Lincoln
May, 2002 Educational Psychology: Quantitative, Qualitative, & Psychometric Methods
Thesis: Validation of a measure of teaching effectiveness: Students' evaluation of teaching effectiveness rating scale
- B.S. University of Wisconsin-Eau Claire
May, 1999 Mathematics and Psychology

PROFESSIONAL EXPERIENCE

August, 2008 – Current

Assistant Professor
Department of Educational & Counseling Psychology
University of Kentucky

Tenure-track faculty appointment that includes teaching graduate courses, research, and service in the Department of Educational, School, and Counseling Psychology.

August, 2006 – August, 2008

Statistical & Measurement Consultant
Nebraska Center for Research on Children, Youth, Families, & Schools
University of Nebraska-Lincoln

Primary responsibilities included statistical and measurement consultation to faculty. Activities involved conducting and writing power analyses, critiquing research proposals before submitting them for external funding, as well as analyzing and managing data for funded projects. An additional responsibility involved the development and presentation of information regarding various statistical, measurement, and research methods to University of Nebraska-Lincoln faculty. Presentations included how to use IRT to develop instruments, handle missing data in statistical analyses, analyze single-subject design data using HLM, exploratory and confirmatory factor analysis techniques in educational research, and response scales and item writing guidelines for attitudinal measures.

July, 2005 – June, 2006

Project Coordinator
Buros Institute for Assessment Consultation and Outreach
University of Nebraska-Lincoln

Primary responsibilities included the development and facilitation of validity studies including alignment and standard setting. Activities involved writing proposals to secure external funding, directing graduate students, and writing technical reports. An additional responsibility consisted of the development and facilitation of assessment literacy workshops.

August, 2002 – May, 2004
July, 2006 – December 2007

Director
Nebraska Evaluation & Research (NEAR) Center
University of Nebraska-Lincoln

Oversaw consultants' schedules, structured weekly consultant meetings, wrote annual reports of NEAR Center activities and presented them to the QQPM graduate committee, and established and completed contracts for research analysis services needed by local Nebraska Department of Education personnel.

August, 2000 – August, 2004
May, 2005 – August, 2005

Statistical Consultant
NEAR Center
University of Nebraska-Lincoln

Provided clients guidance in database construction, maintenance, and manipulation; oversaw and/or performed instrument development using classical test theory, sampling procedures, power analyses, design of studies, and statistical analyses. Examples of statistical analyses included structural equation modeling, factor analyses, multidimensional scaling, ANOVA, MANOVA, and nonparametric statistics. Analyzed, interpreted, and communicated results to students, professors, and Nebraska Department of Education personnel.

January, 1998 – May, 1999

Research Technician
Department of Academic Affairs
University of Wisconsin-Eau Claire

Assisted the University Assessment Coordinator and Institutional Planner in analyzing assessment data. Developed tables and charts that helped summarize results of assessment strategies for various committees as identified in the University Plan for Assessment of Student Academic Achievement, and North Central Accreditation Self-Study.

TEACHING EXPERIENCE

<i>Fall, 2008</i> <i>Summer, 2005, 2006,</i> <i>& 2007</i>	<u>Graduate Courses</u> Research Methods (1 section) Introduction to Educational Measurement (3 sections)
<i>Spring, 2004, Summer, & Spring,</i> <i>2005</i>	Intermediate Statistics (3 sections)
<i>Summer, 2002, 2003, 2004, 2007,</i> <i>& Fall, 2004</i>	Statistical Methods (6 sections)
<i>Fall, 2004</i>	<u>Undergraduate Courses</u> Measurement & Evaluation for Fitness & Nutrition (1 section)
<i>Fall, 1999 - Summer, 2000,</i> <i>Summer, 2001, & Summer, 2002</i>	Statistical Methods (7 sections)

CONSULTATION*Fall, 2002 - Spring, 2003*

Data Analyst
The LNE Transition Project
Center for Instructional Innovation
University of Nebraska-Lincoln

Collected, analyzed, and reported survey results to primary investigator.

Fall, 2000 - Summer, 2001

Data Analyst
STEP Grant Evaluation Plan
University of Nebraska-Lincoln

Conducted, transcribed, generated table of themes from interviews, and put together a brief report of survey results for the primary evaluator.

Fall, 2000

Independent Reviewer
Nebraska Department of Education-Assessment Project
Nebraska Department of Education

Assisted in the review and evaluation of Nebraska public school districts assessment plans for the Nebraska Department of Education.

PUBLICATIONS

Peer Reviewed Journal Articles

- Toland, M. D., & De Ayala, R. J. (2005). A Multilevel factor analysis of students' evaluations of teaching. *Educational and Psychological Measurement*, 65, 272-296.
- Igo, L. B., Toland, M. D., Flowerday, T., Song, S. Y., & Kiewra, K. A. (2002). The accuracy of self-efficacy: A comparison of high school and college students. *Academic Exchange Quarterly*, 6, 123-128.

Book Chapters

- Maag, J. W., Swearer, S. M., & Toland, M. D. (2009). Cognitive-behavioral interventions for depression in children and adolescents: Meta-analysis, promising programs, and implications for school personnel. In M. J. Mayer, R. Van Acker, J. E. Lochman, & F. M. Gresham (Eds.), *Cognitive behavioral interventions for students with emotional/behavioral disorders*. (pp. 235-265). New York: Guilford.

In Preparation or Under Review

- Buhs, E. S., McGinley, M., & Toland, M. D. (Under review). Overt and relational victimization in Latinos and European-Americans: Measurement invariance across ethnicity, gender and age in early adolescent groups.
- Toland, M. D., & De Ayala, R. J. (In prep). The accuracy of BILOG item parameter standard error of estimates.
- Toland, M. D., Bovaird, J. A., Swearer, S., & Givens, J. E. (In prep). Evaluating the children's version of the reading the mind in the eyes (c-EYES) test using Item Response Theory.
- Toland, M. D., Bovaird, J., & Kupzyk, K. (In prep). *On the impact of longitudinal measurement noninvariance on growth curve modeling*.
- Reese, R. J., Hopkins, N., & Toland, M. D. (In prep). *The use of the OQ45 in a university counseling center: A six-year perspective*.
- Danner, F., & Toland, M. D. (In prep) Identifying differences in body mass index levels among elementary children: A latent class growth curve analysis. Data collected and currently being analyzed.
- Nugent, G., Barker, B., Toland, M. D., Grandgenett, N., Hampton, A., & Adamchuk, V. (In prep). Measuring the impact of robotics and geospatial technologies on youth science, technology, engineering, and mathematics attitudes.

Technical Reports

- Toland, M. D., Buckendahl, C. W., Davis, S. L., Badgett, B. A., Romhild, A., Foley, B. P., & Norman, B. (June, 2006). Setting Performance Standards for South Dakota's Mathematics Assessments: Final Report. South Dakota Department of Education.
- Toland, M. D., Buckendahl, C. W., Davis, S. L., Badgett, B. A., Romhild, A., Foley, B. P., Norman, B., & Rodeck, E. M. (June, 2006). Standard Setting Study for South Dakota's English

Language Proficiency Assessments for Students Identified as Limited English Proficient: Final Report. South Dakota Department of Education.

- Toland, M. D., Davis, S. L., Buckendahl, C. W., Romhild, A., & Badgett, B. A. (May, 2006) Standard Setting Study for South Dakota's Alternate Assessment System for Students with Significant Cognitive Disabilities: Rating Portion of the Dakota STEP-A Assessment: Final Report. South Dakota Department of Education.
- Toland, M. D., Foley, B. P., & Norman, B. L. (June, 2006). Evaluating the Alignment of Items Added to the Harcourt Assessment in Mathematics with the South Dakota's Academic Content Standards in Mathematics at Grades 3 and 11 Final Report. South Dakota Department of Education.
- Buckendahl, C., Toland, M., & Schenk, A. (May, 2006). Millard Public Schools Grade 7 Reading Assessment Standard Setting Study: Final Report. Millard Public Schools.
- Buckendahl, C., Toland, M., & Foley, B. (May, 2006). Millard Public Schools Grade 4 Reading Assessment Standard Setting Study: Final Report. Millard Public Schools.
- Toland, M. D., Buckendahl, C. W., & Schenk, A. (April, 2006). Millard public schools grade 10 analytical writing assessment standard setting study: Final Report. Millard Public Schools.
- Toland, M. D., Plake, B. S., & Badgett, B. A. (April, 2006). Reconciliation of Buros and Harcourt Educational Measurement's alignment of the Dakota STEP-A tests to South Dakota's alternate content standards for reading at grades 4 and 5: Final Report. South Dakota Department of Education.
- Toland, M. D., Plake, B. S., & Badgett, B. A. (April, 2006). Reevaluating the Buros and Harcourt Educational Measurement's Alignment of the Dakota STEP Tests to South Dakota Core Content Standards for Reading: Final Report. South Dakota Department of Education.
- Toland, M. D., Buckendahl, C. W., & Römhild, A. (December, 2005). Millard public schools grade 8 social studies assessment standard setting study: Final Report: Millard Public Schools
- Toland, M. D., Buckendahl, C. W., Impara, J. C., Schenk, A. M., Römhild, A., & Foley, B. P. (December, 2005). Evaluating the alignment of select achievement tests with Nebraska's academic content standards in reading at grade 1 and grade level expectation at grade 3: Final Report. Nebraska Department of Education.
- Toland, M. D., Buckendahl, C. W., Impara, J. C., Schenk, A. M., Römhild, A., & Foley, B. P. (December, 2005). Evaluating the alignment of select achievement tests with Nebraska's academic content standards in reading at grade 4 and grade level expectation at grades 5 and 6: Final Report. Nebraska Department of Education.
- Toland, M. D., Buckendahl, C. W., Impara, J. C., Schenk, A. M., Römhild, A., & Foley, B. P. (December, 2005). Evaluating the alignment of select achievement tests with Nebraska's grade level expectation at grade 7 and academic content standards in reading at grades 8 and 12: : Final Report. Nebraska Department of Education.

Toland, M. D., Plake, B. S., & Römheld, A. (October, 2005). Evaluating the alignment of the Dakota STEP-A alternate assessments with South Dakota's alternate academic content standards in reading and mathematics at grades K – 12: Final Report. Nebraska Department of Education.

Carlson, D., Toland, M. D., & Simpson, M. (October, 2002). The LNE transition project: Building a better bridge to high school success 2001-2002: Final Report. Lincoln North East High School.

PRESENTATIONS

Givens, J. E., Toland, M. D., Swearer, S., & Bovaird, J. A. (2009, April). *Evaluating the children's version of the reading the mind in the eyes test using Item Response Theory*. Paper presented at the Biennial Meeting of the Society for Research in Child Development, Denver, CO.

Toland, M. D., & De Ayala, R. J. (2009, April). *The accuracy of BILOG item parameter standard error of estimates*. Paper presented at the annual conference of the National Council on Measurement in Education, San Diego, CA.

Bovaird, J.A., Sheridan, S.M., & Glover, T., Garbacz, S.A., & Toland, M.D. (2008, June). *Synthesizing single-case research: Comparing meta-analysis approaches for repeated behavioral observations on students clustered within classroom*. Paper presented at the Institute for Education Science Research Conference. Washington, DC.

Toland, M. D., Bovaird, J., & Kupzyk, K. (2008). *On the impact of longitudinal measurement noninvariance on growth curve modeling*. Paper presented at the annual conference of the American Educational Research Association, New York, NY.

Toland, M. D. (2008, March). *Response scales and item writing guidelines for attitudinal measures*. Presentation for the Nebraska Center for Research on Children, Youth, Families, and Schools Research Methodology Series, Lincoln, NE.

Toland, M. D., & Kupzyk, K. (2007, December). *Exploratory factor analysis vs. principal components analysis vs. confirmatory factor analysis*. Presentation for the Nebraska Center for Research on Children, Youth, Families, and Schools Research Methodology Series, Lincoln, NE.

Glover, T., & Toland, M. D. (April, 2007). *Single-case/small-n research design and data analysis*. Presentation for the Nebraska Center for Research on Children, Youth, Families, and Schools Research Methodology Series, Lincoln, NE.

Toland, M. D., & Kupzyk, K. (February, 2007). *Approaches for evaluating measurement invariance*. Presentation for the Nebraska Center for Research on Children, Youth, Families, and Schools Research Methodology Series, Lincoln, NE.

Bovaird, J., Kupzyk, K., & Toland, M. D. (December, 2006). *Missing data: What it is and what you can do about it*. Presentation for the Nebraska Center for Research on Children, Youth, Families, and Schools Research Methodology Series, Lincoln, NE.

Toland, M. D. (September, 2006). *Item response theory: Designing psychometrically sound instruments*. Presentation for the Nebraska Center for Research on Children, Youth, Families, and Schools Research Methodology Series, Lincoln, NE.

Toland, M. D., Bruning, R., & Bodvarsson, M. (2004, June). *Promoting learner engagement, confidence, and critical thinking within the context of a web-based unit on norm-referenced testing*. Poster presented at the Nebraska symposium of information technology in education, Lincoln, NE.

Toland, M. D. (2004, April). *Promoting learner engagement, confidence, and critical thinking within the context of a web-based unit on norm-referenced testing*. Paper presented at the College of Education and Human Sciences: Student Presentation, Lincoln, NE

Igo, B., Kiewara, K., Toland, M., & Flowerday, T. (2002). *The appropriateness of efficacy judgments (EA): Norm-referenced and criterion referenced comparisons of high school students and college students*. Paper presented at the annual conference of the American Educational Research Association, New Orleans, LA.

Igo, B., McCrudden, M., Toland, M., & Kiewara, K. (2001). *The impact of spatial organization on working memory and cognitive load: Linear versus matrix presentation*. Paper presented at the annual conference of the American Educational Research Association, Seattle, WA.

PROFESSIONAL AFFILIATIONS

American Educational Research Association (AERA)
National Council on Measurement in Education (NCME)

SERVICES

Guest reviewer for Early Education and Development
Guest reviewer for Journal of Early Intervention
Conference Reviewer for the 2009 Division D In-progress research Gala

COMPUTER SKILLS

GENERAL PURPOSE

Microsoft Office (e.g., Word, Excel, PowerPoint, Outlook, Access), Mozilla Firefox, Internet Explorer, Safari, PsychINFO, ERIC, BLACKBOARD, and both Mac and PC platforms.

HIERARCHICAL LINEAR MODELING

SPSS 16.0 for Windows, SAS Windows Version 9.1, Mplus Version 5.2

ITEM RESPONSE THEORY

BILOG MG 3, MULTILOG, and NOHARM for Windows

STATISTICAL AND STRUCTURAL EQUATION MODELING

SPSS 16.0 for Windows, SAS Windows Version 9.1, Mplus Version 5.2, Gpower (Statistical Power Analysis Program), Optimal Design for Multilevel and Longitudinal Research Version 1.77