

Ray E. Reichenberg, Ph.D.

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Employment

<i>Title</i>	<i>Institution/Company</i>	<i>Year(s)</i>
Senior Research Fellow	University of Otago <i>Educational Assessment Research Unit - College of Education</i>	2023 –
Director of Psychometrics and Behavioral Research	Southern New Hampshire University <i>Office of Product and Program Innovation</i>	2022 – 2023
Research Assistant Professor	University of Nebraska – Lincoln <i>Nebraska Center for Research on Children, Youth, Families & Schools</i>	2019 - 2022
Postdoctoral Research Scientist	The George Washington University <i>Graduate School of Education and Human Development</i>	2018 – 2019
Research/Teaching Assistant	Arizona State University <i>The Sanford School</i>	2010 - 2018
Intern (summer)	Arizona Department of Education <i>Research & Evaluation</i>	2015
Gifted/Talented Specialist	Tempe Elementary School District	2008 - 2010
Classroom Teacher	Tempe Elementary School District	2007 – 2008
ESL Instructor	NOVA Group, Japan	2004 – 2006

Education

<i>Degree</i>	<i>Program (Specialization)</i>	<i>Institution</i>	<i>Year</i>
Ph.D.	Family & Human Development (Measurement/Statistical Analysis)	Arizona State University	2018
M.A.	Educational Psychology (Measurement/Methodological Studies)	Arizona State University	2013

M.Ed.	Curriculum & Instruction (Elementary Education)	Arizona State University	2009
B.S.	Marketing	Arizona State University	2003

Terminal Projects

Dissertation: *The Impact of Information Quantity and Quality on Parameter Estimation for a Selection of Dynamic Bayesian Networks with Latent Variables* (approved: July 2018)

Co-chairs: Dr. Roy Levy; Dr. Natalie Eggum-Wilkens

Thesis: *A Comparison of DIMTEST and Generalized Dimensionality Discrepancy Approaches to Assessing Dimensionality in Item Response Theory* (approved: July 2013)

Co-chairs: Dr. Roy Levy; Dr. Marilyn Thompson

Published Manuscripts

Nelson, R., **Reichenberg, R.E.**, Vu, P. (2022). An evaluation of quality of life for former gifted program participants in Vietnam. *Gifted & Talented International*.

<https://doi.org/10.1080/15332276.2022.2049020>

Reichenberg, R.E., Levy, R., Clark, A. (2022). Considerations for fitting dynamic Bayesian networks with latent variables: A Monte Carlo study. *Applied Psychological Measurement*, 46(2). DOI: <https://doi.org/10.1177/01466216211066609>

Corry, M., Dardick, W.R., & **Reichenberg, R.E.** (2021). An exploratory study of self-efficacy for K-12 online teachers. *Quarterly Review of Distance Education*, 22(2), 1-13.

Rudasill, K.M., **Reichenberg, R.E.**, Eum, J., Barrett, J., Joo, Y., Wilson, E., & Sealy, M. (2020). Promoting higher quality teacher-child relationships: The INSIGHTS intervention in rural schools. *International Journal of Environmental Research and Public Health*, 17(24).

DOI: <https://doi.org/10.3390/ijerph17249371>

Kurz, A., **Reichenberg, R.E.**, Elliott, S.N., & Yel, N. (2020). Opportunity-to-learn performance levels and student achievement growth. *Teaching and Teacher Education*, 94. DOI:

<https://doi.org/10.1016/j.tate.2020.103092>

Lindstrom Johnson, S., **Reichenberg, R.E.**, Shukla, K., Waasdorp, T., & Bradshaw, C. (2019). Improving the measurement of school climate using item response theory. *Educational Measurement: Issues and Practice*, 38(4), 99-107. DOI:

<https://doi.org/10.1111/emip.12296>

Reichenberg, R. (2018). Dynamic Bayesian networks in educational measurement: Reviewing

and advancing the state of the field. *Applied Measurement in Education*, 31(4), 335-350.
DOI: <https://doi.org/10.1080/08957347.2018.1495217>

Lindstrom Johnson, S., **Reichenberg, R.**, Bradshaw, C., Haynie, D., & Cheng, T.L. (2016). Parent and adolescent discrepancies in perceptions of violence: Covariates and outcomes. *Journal of Youth and Adolescence*, 45(10), 2125-2137. DOI: <https://doi.org/10.1007/s10964-016-0505-3>

Lai, K., Green, S.B., Levy, R., **Reichenberg, R.**, Xu, Y., Thompson, M.S., Yel, N., Eggum-Wilkins, N.D., Kunze, K.L., & Iida, M. (2016). Assessing model similarity in structural equation modeling. *Structural Equation Modeling: An Interdisciplinary Journal*, 23(4), 491-506. DOI: <https://doi.org/10.1080/10705511.2016.1154464>

Eggum-Wilkins, N.D., **Reichenberg, R.E.**, Eisenberg, N., & Spinrad, T. (2016). Components of effortful control and relations with children's shyness. *International Journal of Behavioral Development*, 40(6), 544-554. DOI: <https://doi.org/10.1177/0165025415597792>

Research Presentations

Rudasill, K.M., **Reichenberg, R.E.**, Eum, J., Barrett, J., Wilson, E., Joo, Y., & Sealy M.A. (2023, October). *The effects of INSIGHTS on developmental trajectories of children's temperamental regulation*. Accepted for presentation at the Occasional Temperament Conference, Quebec, Canada.

Eum, J., **Reichenberg, R.E.**, Rudasill, K., Barrett, J., Joo, Y., Sealy, M., Nugent, G., Kugler, K., Rejman, E., & Adams, N. (2023, March). *The effects of INSIGHTS on developmental trajectories of children's self-regulation skills*. Presented at the biennial meeting of the Society for Research in Child Development, Salt Lake City, UT.

Baker, A.L., Forster, D.E., **Reichenberg, R.E.**, Neubauer, C.E., Fitzhugh, S.M., & Krausman, A. (2022, February/March). *Toward a causal modeling approach for trust-based interventions in human-autonomy systems*. Presented at the 36th Association for the Advancement of Artificial Intelligence Conference on Artificial Intelligence, virtual.

Reichenberg, R.E., Dardick, W.R., & Choi, J. (2020, August). *Assessing teachers as evaluators of students within the Teacher Empowered Assessment Framework*. Presented at the annual meeting of the American Psychological Association, Washington, D.C..

Reichenberg, R.E. (2019, April). *Considerations for fitting dynamic Bayesian networks with latent variables: A Monte Carlo study*. Presented at the annual meeting of the National Council for Measurement in Education, Toronto, Ontario, Canada.

Reichenberg, R.E. (2016, April). *Performance of DIMTEST and generalized dimensionality discrepancy statistics for assessing unidimensionality*. Presented at the annual meeting of the National Council for Measurement in Education, Washington D.C.

Reichenberg, R., Yel, N., & Kurz, A. (2015, April). *Setting opportunity-to-learn standards for effective teaching*. Presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Jager, J., **Reichenberg, R.E.**, Putnick, D.L., & Bornstein, M.H. (2015, March). *More than just convenient: The scientific merits of homogenous convenience samples*. Presented at the bi-annual meeting of the Society for Research in Child Development, Philadelphia, PA.

Green, S.B., Lai, K., Levy, R., Xu, Y., Yel, N., Thompson, M.S., Eggum-Wilkins, N., Kunze, K., Iida, M., & **Reichenberg, R.**, (2014, April). *Assessing model similarity in structural equation modeling*. Presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.

Brem, S.K., Sinatra, G.M., Stump, G.S., Heddy, B., Nelson, K., & **Reichenberg, R.E.** (2013, August). *From molecules to mammals: Domain specificity in reasoning about emergent systems*. Presented at the 15th Biennial Conference of the European Association for Research in Learning and Instruction, Munich, Germany.

Stump, G.S., Brem, S.K., Sinatra, G.M., **Reichenberg, R.E.**, & Heddy, B., Muto-Nelson, K. (2013, August). *Triangulating ants, protector geese, and slime mold armies: Routes to misconceptions about emergence*. Presented at the 15th Biennial Conference of the European Association for Research in Learning and Instruction, Munich, Germany.

Brem, S.K., Stump, G.S., Sinatra, G.M., **Reichenberg, R.E.**, & Heddy, B. (2012, August). *Misconceptions regarding emergent phenomenon vary by domain*. Presented at the 34th Annual Meeting of the Cognitive Science Society, Sapporo, Japan.

Invited Talks & Local Presentations

Reichenberg, R.E. (2021, February). *Modern psychometric approaches for diagnostic assessment*. Presented as part of the 2020/21 Methodology Applications Series at the University of Nebraska – Lincoln, Lincoln, Nebraska.

Reichenberg, R.E. (2020, March). *Psychometric considerations for technology-enhanced assessments*. Invited talk presented to the Center for Brain, Biology, and Behavior at the University of Nebraska – Lincoln, Lincoln, Nebraska.

Reichenberg, R.E. (2019, November). *Considerations for fitting dynamic Bayesian networks with latent variables*. Invited talk presented at the University of Nebraska – Lincoln, Lincoln, Nebraska.

Reichenberg, R.E. (2019, November). *Psychometric considerations for technology-enhanced assessments*. Invited talk presented at the University of Nebraska – Lincoln, Lincoln, Nebraska.

Academic Teaching Experience (Instructor of Record)

Introduction to Educational and Psychological Measurement (G)	University of Nebraska - Lincoln	2021
Social Statistics I (UG)	Arizona State University	2013-2017
Introductory Applied Statistics (UG)	Arizona State University	2011-2012

Funded Projects

The Impacts of COVID-19 on Educators and Student Learning (<i>Key Personnel</i>) Nebraska Department of Education Total funding: \$49,999 Status: <i>Completed</i>	2021
STEM Lesson Creation Coaching Framework to Improve the Pedagogy of K-5 Teachers Implementing the NGSS (Subaward; <i>PI</i>) US Department of Agriculture (SBIR; IOWW-2020-06673) Total funding: \$600,000 (subaward: \$71,966) Status: <i>Completed</i>	2020 - 2022
An Exploratory Study to Improve Measurement of School Climate for Online Learners (<i>PI</i>) Layman Seed Award Program, University of Nebraska – Lincoln Total funding: \$10,000 Status: <i>Completed</i>	2020 - 2021
The Effects of COVID-19 on Education in Nebraska and the Potential for Recovery (<i>Key Personnel</i>) Office of Research & Economic Development Rapid Response Grant, University of Nebraska - Lincoln Total funding: \$50,000 Status: <i>Completed</i>	2020 - 2021
Testing the Efficacy of INSIGHTS for Promoting Positive Learning	2019-2022

Learning Environments and Academic Achievement in Nebraska:

A Replication Study (*Key Personnel*)

Institute of Education Sciences (R305A180290)

Total funding: \$3,299,957

Status: *Completed*

Eager: Maker – Maker Fridays – Engaging Rural and Underrepresented 2020

High School Students in Pre-engineering Design and Creativity

(Subaward; *PI*)

National Science Foundation (#1723704)

Total funding: \$281,103

Status: *Completed*

4-H Common Measures (*PI*) 2020

National 4-H Council

Total funding: \$110,405

Status: *Completed*

Funding Proposals

Lead Nebraska 2021

Kern Family Foundation (*Co-I*)

Total funding requested: \$4,060,000

Status: *Not funded*

A Comparative Embedded Case Study of Small Rural Districts that 2021
Outperform Expectations (*Co-I*)

Spencer Foundation

Total funding requested: \$50,000

Status: *Not funded*

Effects of COVID-19 on School System Operation and Student 2020
Educational Outcomes (*Co-I*)

Institute of Education Sciences

Total funding requested: \$1,700,000

Status: *Not funded*

STEMulating Equity in Rural Schools Through Immersive 2020
Learning Experiences (*Co-PI*)

National Science Foundation (ITEST)

Total funding requested: \$1,500,000

Status: *Not funded*

Neurocognitive Predictors of Readiness for Reading-to-Learn (*Co-I*) 2020

National Institutes of Health (R01)

Total funding requested: \$1,938,422

Status: *Not funded*

Service Activities/Leadership Positions

Graduate Faculty Department of Educational Psychology University of Nebraska – Lincoln	2021
Nebraska Methodology Workshop Series – Organizer University of Nebraska – Lincoln	2021
Faculty Fellow for Student Success University of Nebraska – Lincoln	2021-2022
Student Conduct Board – Member University of Nebraska – Lincoln	2020 – 2023
Student Conduct Appeals Board – Member University of Nebraska – Lincoln	2020 – 2023
Website Committee – Member National Council on Measurement in Education	2020-Present
Graduate Student Committee – Member American Educational Research Association – Div. D	2014-2016
Graduate Student Issues Committee – Member National Council on Measurement in Education	2014-2016
Membership Committee – Graduate Student Liaison American Educational Research Association	2013-2014
Early Career Scholar Award Committee – Graduate Student Liaison American Educational Research Association	2011-2012

Review & Editorial

Ad Hoc Reviewer

Applied Measurement in Education	2020-2022
Asia Pacific Education Review	2020
Journal of Social and Personal Relationships	2020
Applied Psychological Measurement	2021
Measurement: Interdisciplinary Research and Perspectives	2022-2023
Journal of Educational Measurement	2022

Conference Proposal Reviewer

American Educational Research Association	2021 – 2022
American Psychological Association	2019 – 2021
National Council on Measurement in Education	2013 – 2022

Grant Reviewer

ASU Graduate and Professional Students' Association

2012 – 2015

Professional Licenses / Certificates

Arizona State Teaching Certificate

Grades K-8; Structured English Immersion endorsement

Professional Affiliations

Psychometric Society

2010-Present

National Council on Measurement in Education

2011-Present

American Psychological Association (Division 5)

2013-Present

Society for Learning Analytics Research

2022-Present

Software Skills

Fluent: R/S+, SPSS, Mplus, WinBUGS/JAGS, Netica, Adobe Creative Suite, Microsoft Office

Competent: Python, PyTorch, SAS, R Markdown, BayesiaLab, IRTPRO, FlexMIRT, Stata, STAN (via R), NetLogo, SQL, XML/JSON, Qualtrics