

CURRICULUM VITAE
NATALIE A. KOZIOL, PhD
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ACADEMIC APPOINTMENT

- 2019 – Present Graduate Faculty Associate, Department of Educational Psychology, University of Nebraska–Lincoln, Lincoln, NE
- 2017 – Present Research Assistant Professor
Nebraska Center for Research on Children, Youth, Families & Schools
University of Nebraska–Lincoln

EDUCATIONAL BACKGROUND

- PhD 2015 Major: Psychological Studies in Education
Specialization: Quantitative, Qualitative, & Psychometric Methods
University of Nebraska–Lincoln
Advisor: Dr. James Bovaird
Dissertation: *A comparison of population-averaged and cluster-specific approaches in the context of unequal probabilities of selection*
- MS 2013 Major: Statistics
University of Nebraska–Lincoln
Advisor: Dr. Chris Bilder
- MA 2010 Major: Educational Psychology
Specialization: Quantitative, Qualitative, & Psychometric Methods
University of Nebraska–Lincoln
Advisor: Dr. James Bovaird
Thesis: *Evaluating measurement invariance with censored ordinal data: A Monte Carlo comparison of alternative model estimators and scales of measurement*
- BA 2008 Major: Psychology (with high distinction)
Minors: Economics, Ethnic Studies, Mathematics
University of Nebraska–Lincoln
Honors Thesis Advisor: Dr. David DiLillo
Honors Thesis: *The relationship between childhood maltreatment and subsequent decreased marital satisfaction: Does spousal affect have a mediating role?*

GRANTS AND CONTRACTS

Funded

- 2019 – 2023 Statistician. “Project VIEW: Visual Impairments Education in Writing.” Funded by U.S. Department Education, Institute of Education Sciences. M. Hebert, PI. Grant Total: \$1,399,158
- 2019 – 2020 Principal Investigator. Advancing Measurement of Spanish-Speaking Students’ Mathematics Achievement: A Novel Approach for Controlling Selection Bias in Evaluations of DIF. Funded by the National Science Foundation via the American Educational Research Association Grants Program. Grant Total: \$25,000.
- 2019 – 2020 Principal Investigator: Pursuing Causal Inferences With Complex Survey Data. Funded by the University of Nebraska–Lincoln. Grant Total: \$10,000.
- 2019 – 2020 Investigator. “4-H Common Measures.” Funded by the National 4-H Council. M.

- 2019 Howell Smith, PI. Grant Total: \$34,967.
Co-Investigator. Supplement to “4-H Common Measures.” Funded by the National 4-H Council. M. Howell Smith, PI. Contract Total: \$5,443.
- 2017 – 2019 Co-Investigator. “4-H Common Measures.” Funded by the National 4-H Council. L. Hawley, PI (until July 2018); M. Howell Smith, PI (after July 2018). Contract Total: \$72,578.
- 2018 Co-Investigator. “Imagine!: Improving Kindergarteners’ Nutrition and Physical Activity Related Knowledge, Preferences and Habits through Virtual Reality Game in Rural Nebraska.” Funded by the University of Nebraska–Lincoln. C. Yan, PI. Grant Total: \$20,000.
- 2017 – 2018 Principal Investigator. “Supporting Early Childhood Development in Africa: Capacity-Building Partnership.” Funded by the Children’s Investment Fund Foundation, sub-award from the University of Nebraska Medical Center. Grant Total: \$83,192.
- 2017 – 2018 Co-Principal Investigator (until July 2018), Principal Investigator (after July 2018). “Development and Validation of the *Inventário Dimensional de Avaliação do Desenvolvimento Infantil (IDADI; Dimensional Inventory for Child Development Assessment)*.” Funded by the University of Nebraska–Lincoln. L. Hawley, PI (until July 2018). Grant Total: \$47,806.
- 2016 – 2021 Statistician (unnamed). “Early Learning Contexts in Rural and Urban Nebraska.” Funded by U.S. Department of Education, Institute of Education Sciences. S. Sheridan, PI. Grant Total: \$4,499,878.
- 2016 – 2017 Co-Investigator. “Common Measures Continued Development.” Funded by the National 4-H Council. L. Hawley, PI. Contract Total: \$116,620.
- 2015 – 2019 Statistician (unnamed). “Efficacy of the START-Play Program for Infants with Neuromotor Disorders.” Funded by U.S. Department of Education, Institute of Education Sciences. R. Harbourne (Duquesne University), PI. Grant Total: \$475,407.
- 2014 – 2016 Statistician (unnamed). “Early Head Start Visitors’ Identification of Risk for Maltreatment.” Funded by U.S. Department of Health and Human Services, Administration for Children and Families. D. Hansen, PI. Grant Total: \$49,994.
- 2014 – 2015 Statistician (unnamed). “Early Temperament, Social/Contextual Support, and Adolescent Adjustment.” Funded by U.S. Department of Health and Human Services, National Institute of Child Health and Human Development. E. Crockett, PI. Grant Total: \$151,000.
- 2013 – 2014 Statistician (unnamed). “Temperament and Preschool Classroom Processes as Predictors of Kindergarten Achievement for Children with Demographic Risk.” Funded by American Educational Research Association. K. Moritz Rudasill, PI. Grant Total: \$17,500.

PUBLICATIONS AND INTELLECTUAL PROPERTIES

Journal Articles

- Koziol, N. A.** (2019). Weighted multilevel versus robust single-level methods for analyzing subpopulation data. *Methodology*, *15*, 67–76. doi:10.1027/1614-2241/a000165
- Raikes, A., **Koziol, N. A.**, Janus, M., Platas, L., Smeby, A., Weatherholt, T., & Sayre, R. (2019). Examination of school readiness constructs in Tanzania: Psychometric evaluation of the MELQO scales. *Journal of Applied Developmental Psychology*, *62*, 122-134. doi:10.1016/j.appdev.2019.02.003
- Rispoli, K. M., **Koziol, N. A.**, McGoey, K. E., & Schreiber, J. B. (2017). Parenting, childcare, and children’s pre-kindergarten skills: Exploring moderation by race and ethnicity. *Early Child Development and Care*, *189*, 946–964. doi:10.1080/03004430.2017.1359580

- Buhs, E. S., **Koziol**, N. A., Rudasill, K. M., & Crockett, L. J. (2018). Early temperament and middle school engagement: School social relationships as mediating processes. *Journal of Educational Psychology, 110*, 338–354. doi:10.1037/edu0000224
- Harbourne, R. T., Dusing, S. C., Lobo, M. A., McCoy, S. W., Bovaird, J., Sheridan, S. M., Galloway, J., Chang, I., Hsu, L.-Y., **Koziol**, N. A., Marcinowski, E., & Babik, I. (2018). Sitting Together and Reaching to Play (START-Play): Design and protocol for a multisite randomized controlled efficacy trial on intervention for infants with neuromotor disorders. *Physical Therapy, 98*, 494–502. doi:10.1093/ptj/pzy033
- Koziol**, N. A., & Bovaird, J. A. (2018). The impact of model parameterization and estimation methods on tests of measurement invariance with ordered polytomous data. *Educational and Psychological Measurement, 78*, 272–296. doi:10.1177/0013164416683754
- Namkung, J. M., Fuchs, L. S., & **Koziol**, N. A. (2018). Does initial learning about the meaning of fractions present similar challenges for students with and without adequate whole-number skill? *Learning and Individual Differences, 61*, 151–157. doi:10.1016/j.lindif.2017.11.018
- Koziol**, N. A., Bovaird, J. A., & Suarez, S. (2017). A comparison of population-averaged and cluster-specific approaches in the context of unequal probabilities of selection. *Multivariate Behavioral Research, 52*, 325–349. doi:10.1080/00273171.2017.1292115
- Glover, T. A., Nugent, G. C., Chumney, F. L., Ihlo, T., Shapiro, E. S., Guard, K., **Koziol**, N., & Bovaird, J. (2016). Investigating rural teachers' professional development, instructional knowledge, and classroom practice. *Journal of Research in Rural Education, 31*(3), 1–16. Retrieved from <http://jrre.psu.edu/wp-content/uploads/2016/05/31-3.pdf>
- Hawley, L. R., **Koziol**, N. A., Bovaird, J. A., McCormick, C. M., Welch, G. W., Arthur, A. M., & Bash, K. (2016). Defining and describing rural: Implications for rural special education research and policy. *Rural Special Education Quarterly, 35*, 3–11. doi:10.1177/875687051603500302
- Koziol**, N. A. (2016). Parameter recovery and classification accuracy under conditions of testlet dependency: A comparison of the traditional 2PL, testlet, and bi-factor models. *Applied Measurement in Education, 29*, 184–195. doi:10.1080/08957347.2016.1171767
- Swartz, R. A., Wiley, A. R., **Koziol**, N., & Magerko, K. A. (2016). Psychosocial influences upon the workforce and professional development participation of family child care providers. *Child and Youth Care Forum, 45*, 781–805. doi:10.1007/s10566-016-9353-2
- DeChenne, S. E., **Koziol**, N. A., Needham, M., & Enochs, L. E. (2015). Modeling sources of teaching self-efficacy for science, technology, engineering, and mathematics graduate teaching assistants. *CBE—Life Sciences Education, 14*(32), 1–14. doi:10.1187/cbe.14-09-0153
- Garbacz, S. A., Sheridan, S. M., **Koziol**, N. A., Kwon, K., & Holmes, S. R. (2015). Congruence in parent-teacher communication: Implications for the efficacy of CBC for students with behavioral concerns. *School Psychology Review, 44*, 150–168. doi:10.17105/spr-14-0035.1
- Koziol**, N. A., Arthur, A. M., Hawley, L. R., Bovaird, J. A., Bash, K. L., McCormick, C. M., & Welch, G. W. (2015). Identifying, analyzing, and communicating rural: A quantitative perspective. *Journal of Research in Rural Education, 30*(4), 1–14. Retrieved from <http://jrre.psu.edu/wp-content/uploads/2015/03/30-4.pdf>
- Koziol**, N. A., & Bilder, C. B. (2014). MRCV: A package for analyzing categorical variables with multiple response options. *The R Journal, 6*, 144–150. Retrieved from <https://journal.r-project.org/archive/2014/RJ-2014-014/RJ-2014-014.pdf>
- Minke, K. M., Sheridan, S. M., Kim, E. M., Ryoo, J. H., & **Koziol**, N. A. (2014). Congruence in parent-teacher relationships: The role of shared perceptions. *The Elementary School Journal, 114*, 527–546. doi:10.1086/675637
- Sheridan, S. M., **Koziol**, N. A., Clarke, B. L., Rispoli, K. M., & Coutts, M. J. (2014). The influence of rurality and parental affect on kindergarten children's social and behavioral functioning. *Early Education and Development, 25*, 1057–1082. doi:10.1080/10409289.2014.896682
- Yeoman, K. M., Ryerson, A. B., **Koziol**, N. A., Buss, B., & Safranek, T. (2014). Breast cancer incidence among Nebraska women: Early and late-stage trends, 1995–2009. *Journal of Registry*

Management, 41, 154–157. PMID: 25419611

- Kim, E. M., Sheridan, S. M., Kwon, K., & **Koziol**, N. A. (2013). Parent beliefs and children's social-behavioral functioning: The mediating role of parent-teacher relationships. *Journal of School Psychology*, 51, 175–185. doi:10.1016/j.jsp.2013.01.003
- Rispoli, K. M., McGoey, K. E., **Koziol**, N. A., & Schreiber, J. B. (2013). The relation of parenting, child temperament, and attachment security in early childhood to social competence at school entry. *Journal of School Psychology*, 51, 643–658. doi:10.1016/j.jsp.2013.05.007

Book Chapters & Reviews

- Koziol**, N. A., & Witte, A. L. (2019). Designing, analyzing, and disseminating research on family–school partnership programs. In S. A. Garbacz (Ed.), *Establishing family–school partnerships in school psychology: Critical skills* (pp. 245–274). New York, NY: Guilford.
- Clarke, B. L., **Koziol**, N. A., & Sheridan, S. M. (2017). The effects of rurality on parents' engagement in children's early literacy. In G. C. Nugent, G. M. Kunz, S. M. Sheridan, T. A. Glover, & L. L. Knoche (Eds.), *Rural education research in the United States: State of the science and emerging directions* (pp. 231–250). New York, NY: Springer.
- Hawley, L. R., **Koziol**, N. A., & Bovaird, J. A. (2017). Defining and communicating rural. In G. C. Nugent, G. M. Kunz, S. M. Sheridan, T. A. Glover, & L. L. Knoche (Eds.), *Rural education research in the United States: State of the science and emerging directions* (pp. 31–54). New York, NY: Springer.
- Koziol**, N. A., & Bash, K. L. (2017). Review of the Pragmatic Language Observation Scale. In J. F. Carlson, K. F. Geisinger, & J. L. Jonson (Eds.), *The twentieth mental measurements yearbook* (pp. 577–579). Lincoln, NE: The University of Nebraska–Lincoln.
- Bovaird, J. A., & **Koziol**, N. A. (2012). High-stakes education research: Enhanced scrutiny of the education system and its consequences. In J. A. Bovaird, K. F. Geisinger, & C. W. Buckendahl (Eds.), *High stakes testing in education: Science and practice in K–12 settings* (pp. 211–228). Washington, DC: APA Books.
- Bovaird, J. A., & **Koziol**, N. A. (2012). Measurement models for ordered categorical indicators in structural equation modeling. In R. H. Hoyle, D. Kaplan, G. Marcoulides, & S. West (Eds.), *Handbook of structural equation modeling* (pp. 495–511). New York, NY: Guilford.

Statistical Software Packages

- Koziol**, N. A., & Bilder, C. B. (2013, September). MRCV: Methods for analyzing multiple response categorical variables (Version 0.1-0) [R software package]. Last updated September 2014 (Version 0.3-3). URL <http://CRAN.R-project.org/package=MRCV>

Published Conference Abstracts

- Tripathi, T., Syed, G., Marcinowski, E., Hsu, L.-Y., **Koziol**, N., & Dusing, S. C. (2018). Sitting abilities predict early problem solving skills in infants with motor delays. *Pediatric Physical Therapy*, 30(1), E8. [Abstracts of Platform Presentations at the CSM] doi:10.1097/PEP.0000000000000480
- Tripathi, T., Hsu, L.-Y., **Koziol**, N., Syed, G., & Dusing, S. C. (2017). Concurrent validity of the Bayley cognitive subtest and early problem solving indicator in infants with neuromotor impairments. *Developmental Medicine & Child Neurology*, 59(S3), 113. [Abstracts of 71st annual Meeting of the American Academy for Cerebral Palsy and Developmental Medicine] doi:10.1111/dmcn.55_13512

Technical Reports

- Koziol**, N., Howell Smith, M., & Stevens, J. (2019). *4-H Common Measures 2.0 (CM 2.0): National Call for Data*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- Koziol**, N., Howell Smith, M., & Stevens, J. (2019). *4-H Common Measures Continued Work: CM 2.0 Implementation Case Study Report*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.

- Koziol, N.** (2018). *MELQO MODEL results and recommendations: Cambodia*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- Koziol, N.** (2018). *MELQO MODEL results and recommendations: Ethiopia*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- Koziol, N.** (2018). *MELQO MODEL results and recommendations: Lesotho*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- Koziol, N.** (2018). *MELQO MODEL results and recommendations: Liberia*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- Koziol, N.** (2018). *MELQO MODEL results and recommendations: Zanzibar*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- Koziol, N.** (2017). *MELQO MODEL results and recommendations: Mainland Tanzania*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- Koziol, N., Howell Smith, M., Hawley, L. R., Stevens, J., Arthur, A., Pense, S., Perez, A., & Wheeler, L.** (2017). *4-H Common Measures 2.0: Pilot Study Results*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- Hawley, L. R., Howell Smith, M., Arthur, A., **Koziol, N., Wheeler, L., Stevens, J., Pense, S., & Perez, A.** (2017). *4-H Common Measures: Continued Development of Common Measures 2.0*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- Arthur, A., Howell Smith, M., Hawley, L. R., White, A., **Koziol, N., & Stevens, J.** (2016). *4-H Common Measures: Development of Common Measures 2.0*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- Hawley, L. R., Arthur, A., Howell Smith, M., **Koziol, N., White, A., & Stevens, J.** (2016). *Evaluation of the 4-H Common Measures: Developing Common Measures Version 2.0*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- Raikes, A., Janus, M., Platas, L., **Koziol, N., Dizona, P., Duku, E., & Hawley, L.** (2016). *Cross-national measurement of early childhood development: Findings from the Measuring Early Learning Quality and Outcomes project*. Omaha, NE: University of Nebraska Medical Center.
- Hawley, L. R., **Koziol, N. A., Smith, M. H., & Arthur, A.** (2015). *Evaluation of the 4-H Common Measures: Psychometric review*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- Howell Smith, M. C., Arthur, A. M., Hawley, L. R., White, A. S., **Koziol, N. A., & Stevens, J.** (2015). *Evaluation of the 4-H Common Measures: Proposed redesign*. Lincoln, NE: Nebraska Academy for Methodology, Analytics & Psychometrics.
- McCormick, C., **Koziol, N., Arthur, A., & Bovaird, J. A.** (2012). *LARRC technical report on data issues*. Lincoln, NE: Nebraska Center for Research on Children, Youth, Families & Schools.
- McCormick, C., **Koziol, N., Arthur, A., & Bovaird, J. A.** (2012). *LARRC technical report on psychometric properties*. Lincoln, NE: Nebraska Center for Research on Children, Youth, Families & Schools.
- Koziol, N. A., Bovaird, J. A., & Harms, P. D.** (2011). *GAT item analysis and instrument revision project*. Lincoln, NE: Nebraska Center for Research on Children, Youth, Families & Schools.
- Foley, B. P., Shaw, L., **Koziol, N. A., & Geisinger, K. F.** (2009). *DSTEP Reading alignment activities, 2008-2009: Evaluating the alignment of newly developed items and summarizing the alignment of the full 2009 Dakota STEP Reading assessment forms*. Lincoln, NE: Buros Center for Testing.
- Koziol, N. A., McCormick, C., Foley, B. P., & Geisinger, K. F.** (2009). *Standard setting study for the 2009 Dakota STEP Reading assessment*. Lincoln, NE: Buros Center for Testing.
- McCormick, C., **Koziol, N. A., Foley, B. P., & Geisinger, K. F.** (2009). *Standard setting study for the 2009 Dakota STEP Alternate Reading assessment*. Lincoln, NE: Buros Institute for Assessment Consultation and Outreach.
- McCormick, C., **Koziol, N. A., Foley, B. P., & Geisinger, K. F.** (2009). *Standard setting study for the 2009 Dakota STEP Alternate Science assessment*. Lincoln, NE: Buros Institute for Assessment Consultation and Outreach.

RESEARCH PRESENTATIONS

National and International Conferences

- Cunha, A. B., Babik, I., **Koziol**, N. A., Nord, J., Hsu, L.-Y., Harbourne, R. T., Bovaird, J. A., Dusing, S. C., McCoy, S. W., & Lobo, M. A. (2019, September). *Feasibility, validity, and reliability of a novel Means-End Problem Solving Assessment Tool (MEPSAT)*. Poster presented at the Combined American Academy for Cerebral Palsy and Developmental Medicine (AACPD) 73rd Annual and International Alliance of Academies of Childhood Disability (IAACD) 2nd Triannual Meeting, Anaheim, CA.
- Harbourne, R., Dusing, S. C., Lobo, M., McCoy, S. W., **Koziol**, N. A., Hsu, L.-Y., Willett, S., Marcinowski, E. C., Babik, I., Cunha, A. B., An, M., Chang, H.-J., Bovaird, J. A., & Sheridan, S. (2019, September). *Efficacy of the START-Play program for infants with neuromotor disorders: Cognitive outcomes*. Paper presented at the Combined American Academy for Cerebral Palsy and Developmental Medicine (AACPD) 73rd Annual and International Alliance of Academies of Childhood Disability (IAACD) 2nd Triannual Meeting, Anaheim, CA.
- Lobo, M., Harbourne, R. T., Dusing, S. C., McCoy, S. W., Cunha, A. B., Babik, I., Hsu, L.-Y., **Koziol**, N. A., Bovaird, J. A., Marcinowski, E. C., Chang, H.-J., An, M., Sheridan, S., & Willett, S. (2019, September). *Efficacy of the START-Play program for infants with neuromotor disorders: Motor outcomes*. Paper presented at the Combined American Academy for Cerebral Palsy and Developmental Medicine (AACPD) 73rd Annual and International Alliance of Academies of Childhood Disability (IAACD) 2nd Triannual Meeting, Anaheim, CA.
- Molinini, R., Inamdar, K., Marcinowski, E., Dusing, S., **Koziol**, N., Lobo, M. A., Harbourne, R. T., McCoy, S. W., & Bovaird, J. A. (2019, September). *Measuring early problem-solving in children with motor impairments: Evaluating responsiveness over time using a modification of the Early Problem Solving Indicator*. Paper presented at the Combined American Academy for Cerebral Palsy and Developmental Medicine (AACPD) 73rd Annual and International Alliance of Academies of Childhood Disability (IAACD) 2nd Triannual Meeting, Anaheim, CA.
- Koziol**, N. A. (2019, August). *An investigation of sample weighted multilevel propensity score analysis*. Poster presented at the American Psychological Association annual meeting, Chicago, IL.
- Knoche, L., Sheridan, S. M., **Koziol**, N. A., Witte, A. L., & Iruka, I. U. (2019, April). *Exploring preschool participation: What are the benefits for students from rural and urban communities in the Midwest?* Paper presented at the American Educational Research Association annual meeting, Toronto, ON.
- Lester, H. F., **Koziol**, N., & Hysong, S. J. (2019, April). *Improving power to detect moderation*. Poster presented at the Society for Industrial and Organizational Psychology annual conference, National Harbor, MD.
- Bandeira, D. R., Mendonça, E., Silva, M. A., **Koziol**, N., & Hawley, L. (2019, March). *Dimensional Inventory for Child Development Assessment Socioemotional Scale: Validity evidence based on the internal structure*. Poster presented at the Society for Research in Child Development biennial meeting, Baltimore, MD.
- Sheridan, S., Knoche, L., Witte, A., & **Koziol**, N. (2019, March). *Parent engagement in rural and urban contexts*. Paper presented at the Society for Research in Child Development biennial meeting, Baltimore, MD.
- Koziol**, N. A. (2018, October). *An evaluation of the alignment method for testing measurement invariance with secondary data and complex sampling designs*. Poster presented at the Society for Research in Child Development – DEVSEC: Conference on the Use of Secondary and Open Source Data in Developmental Science, Phoenix, AZ.
- Sparapani, N., **Koziol**, N., & Mackintosh, B. (2018, October). *Measurement invariance of foundational learning skills in kindergarten boys with and without autism. A secondary data analysis*. Paper presented at the Society for Research in Child Development – DEVSEC: Conference on the Use of Secondary and Open Source Data in Developmental Science, Phoenix, AZ.

- Koziol**, N. A. (2018, August). *Recommended versus actual practices for analyzing complex probability samples*. Poster presented at the American Psychological Association annual meeting, San Francisco, CA.
- Mendonça Filho, E., Silva, M., Miranda, J., **Koziol**, N., Hawley, L., & Bandeira, D. (2018, July). *Psychometric properties, refinement and clinical application of the Dimensional Inventory for Child Development Assessment*. Paper presented at the Conference of the International Test Commission, Montreal, ON.
- Buhs, E. S., Koziol, N. A., Rudasill, K. M., & Crockett, L. J. (2018, April). *Predicting adolescent externalizing problems and school adjustment: Teacher-child relationships mediate links to early temperament*. Poster presented at the Society for Research on Adolescence biennial meeting, Minneapolis, MN.
- Tripathi, T., Syed, G., Marcinowski, E., Hsu, L.-Y., **Koziol**, N., & Dusing, S. C. (2018, February). *Sitting abilities predict early problem solving skills in infants with motor delays*. Platform presentation at the Combined Section Meeting, New Orleans, LA.
- Syed, G., Tripathi, T., Marcinowski, E. C., Hsu, L.-Y., **Koziol**, N., & Dusing, S. C. (2017, November). *The impact of increasing sitting ability and age in developing early problem solving skills*. Poster presented at the International Society for Developmental Psychobiology annual meeting, Washington, DC.
- Tripathi, T., Hsu, L.-Y., **Koziol**, N., Syed, G., & Dusing, S. C. (2017, September). *Concurrent validity of the Bayley cognitive subtest and early problem solving indicator in infants with neuromotor impairments*. Poster presented at the American Academy for Cerebral Palsy and Developmental Medicine annual meeting, Montreal, Québec.
- Arthur, A. M., **Koziol**, N., Hawley, L., Howell Smith, M., Stevens, J., & Bovaird, J. (2017, August). *The impact of negative valence on responses and response times*. Poster presented at the American Psychological Association annual meeting, Washington, DC.
- Koziol**, N., Arthur, A. M., Hawley, L., Howell Smith, M., & Stevens, J. (2017, August). *Examining the impact of negative valence on factor structures*. Poster presented at the American Psychological Association annual meeting, Washington, DC.
- Buhs, E. S., **Koziol**, N. A., Rudasill, K. M., & Crockett, L. (2017, April). *Children's temperament and later school engagement: Peer and teacher relationships in elementary school as mediating processes*. Poster presented at the American Educational Research Association annual meeting, San Antonio, TX.
- Crockett, L., **Koziol**, N., Rudasill, K., & Buhs, E. (2017, April). *Child temperament predicts adolescent externalizing behavior through mother-child and teacher-child relationship quality*. Poster presented at the Society for Research in Child Development biennial meeting, Austin, TX.
- Hawley, L., **Koziol**, N. A., Arthur, A., & Howell Smith, M. C. (2017, April). *Creating a brief tool for measuring positive youth development: Applying validity theory in scale development*. Paper presented at the American Educational Research Association annual meeting, San Antonio, TX.
- Howell Smith, M. C., Arthur, A., Hawley, L., & **Koziol**, N. A. (2017, April). *Expanding mixed methods instrument development designs*. Paper presented at the American Educational Research Association annual meeting, San Antonio, TX.
- Koziol**, N. A., Lester, H. F., & Nord, J. (2017, April). *Evaluating methods for analyzing subpopulation data with single-level and multilevel pseudo maximum likelihood*. Paper presented at the American Educational Research Association annual meeting, San Antonio, TX.
- Howell Smith, M., Arthur, A., Hawley, L., & **Koziol**, N. (2016, April). *What happens in the "→"?* *Expanding mixed methods instrument development designs*. Paper presented at the American Educational Research Association annual meeting, Washington, DC.
- Crockett, L., **Koziol**, N., & Buhs, E. S. (2016, March). *Mother-child conflict partially mediates the associations between early temperament traits and adolescents' externalizing behavior*. Poster presented at the Society for Research on Adolescence biennial meeting, Baltimore, MD.
- Koziol**, N. A., Bovaird, J. A., & Lee, H. (2015, April). *A comparison of population-averaged and cluster-*

- specific approaches in the context of unequal probabilities of selection.* Paper presented at the American Educational Research Association annual meeting, Chicago, IL.
- Rispoli, K., **Koziol**, N. A., Schreiber, J. B., & McGoey, K. E. (2014, April). *Context, parenting practices, and children's school readiness.* Paper presented at the American Educational Research Association annual meeting, Philadelphia, PA.
- Koziol**, N. A., & Bilder, C. R. (2013, July). *MRCV: A package for analyzing the association among categorical variables with multiple response options.* Paper presented at the useR! – International R User Conference, Albacete, Spain.
- Koziol**, N. A., Clarke, B. L., & Sheridan, S. M. (2012, October). *Rurality and reading readiness: The longitudinal effects of setting on parent engagement and children's early literacy.* Paper presented at the National Rural Education Association annual convention, Cincinnati, OH.
- Kim, E. M., Minke, K. M., Sheridan, S. M., **Koziol**, N. A., Ryoo, J., & Rispoli, K. M. (2012, August). *Congruence within the parent-teacher relationship: Associations with children's functioning.* Poster presented at the American Psychological Association annual meeting, Orlando, FL.
- Koziol**, N. A., & Templin, J. (2012, April). Quantifying the impact of misusing examinee latent variable estimates in item response models. Paper presented at the National Council on Measurement in Education annual meeting, Vancouver, British Columbia.
- Bovaird, J. A., **Koziol**, N. A., & Chumney, F. (2011, October). *An ecological model of school readiness: A methodological investigation into the role of rurality.* Paper presented at the Building Solutions to Poverty: Methods and Metrics for Identifying Success conference, Columbus, OH.
- Koziol**, N. A., & Bovaird, J. A. (2011, May). *Comparing the bias of two dyadic indexes under conditions of ordinality.* Poster presented at the Association for Psychological Science annual convention, Washington, DC.
- Koziol**, N. A. (2011, April). *Estimating IRT parameters under conditions of testlet dependency: A comparison of the traditional 2PL, Bayesian random effects, and bi-factor models.* Paper presented in roundtable format at the American Educational Research Association annual meeting, New Orleans, LA.
- Kupzyk, K. A., Welch, G. W., Bovaird, J. A., & **Koziol**, N. A. (2011, April). *Missing data in cluster randomized trials: Imputations and auxiliary variables.* Poster presented at the Society for Research in Child Development biennial meeting, Montreal, Québec.
- Koziol**, N. A., & Bovaird, J. A. (2010, August). *Evaluating measurement invariance with censored ordinal data: A Monte Carlo comparison of alternative model estimators and scales of measurement.* Poster presented at the American Psychological Association annual meeting, San Diego, CA.
- Glover, T. A., Bovaird, J. A., **Koziol**, N. A., Glenn, B., & Chumney, F. (2010, August). *School psychology intervention research: Methodological considerations with implications for practice.* Poster presented at the American Psychological Association annual meeting, San Diego, CA.
- Koziol**, N. A., & Bovaird, J. A. (2010, April). *Evaluating complementary structural models of dynamic change: Latent differences versus piecewise growth.* Paper presented in roundtable format at the American Educational Research Association annual meeting, Denver, CO.
- Koziol**, N. A., & Bovaird, J. A. (2009, August). *Using experimental designs to evoke construct validity evidence.* Poster presented at the American Psychological Association annual meeting, Toronto, Canada.

Regional & Local Conferences

- Witte, A. L., Sheridan, S. M., Knoche, L. L., **Koziol**, N. A., Schumacher, R. E., Kerby, H. M., & Iruka, I. U. (2018, October). *The Early Learning Network: Overview and preliminary findings from urban and rural Nebraska.* Poster presented at the CEHS Research Showcase, University of Nebraska-Lincoln, Lincoln, NE.
- Koziol**, N., Bandeira, D., Hawley, L., Mendonça Filho, E., & Silva, M. (2018, April). *Development of the Dimensional Inventory for Child Development Assessment.* Poster presented at the CYFS Summit

- on Research in Early Childhood, Lincoln, NE.
- Raikes, A., **Koziol**, N., & Davis, D. (2018, April). *Evidence for using school readiness measures in sub-Saharan Africa*. Poster presented at the CYFS Summit on Research in Early Childhood, Lincoln, NE.
- Sheridan, S., Knoche, L., **Koziol**, N., Witte, A., Mackintosh, B., Iruka, I., Bovaird, J., DeKraai, M., & Walther, J. (2018, April). *Preschool profile in urban/rural Nebraska: Preliminary findings from network research*. Presented at the CYFS Summit on Research in Early Childhood, Lincoln, NE.
- Koziol**, N. A. (2008, April). *The relationship between childhood maltreatment and subsequent decreased marital satisfaction: Does spousal affect have a mediating role?* Poster presented at the 2008 Undergraduate Research Conference, Lincoln, NE.
- Koziol**, N. A. (2007, March). *Linear discrimination of sexual offenders in relation to recidivism rates*. Poster presented at the 27th Annual Great Plains Students' Psychology Convention, Wichita, KS.
- Koziol**, N. A. (2006, November). *The interaction of Greek affiliation, gender, and binge drinking in relation to alcohol, drug, and condom use prior to sexual activities*. Poster presented at the 7th Biennial Joint PERK/NPS Convention, Hays, KS.

Other Professional Presentations

- Sheridan, S., Knoche, L., Iruka, I., **Koziol**, N., & Witte, A. (2019, January). *Learning frontiers: Trajectories and differences for children in Nebraska*. Presented at the annual Institute of Education Sciences PI meeting, Washington, DC.
- Sheridan, S., Knoche, L., Iruka, I., Witte, A., **Koziol**, N., Dekraai, M., & Bovaird, J. (2019, January). *Trajectories for children in rural and urban Nebraska*. Presented at the Institute of Education Sciences Early Learning Network meeting, Washington, DC.
- Koziol**, N. A. (2018, October). *Investigation of the alignment method for testing measurement invariance with complex probability sampling designs*. Presented to the Department of Educational Psychology, University of Nebraska–Lincoln, Lincoln, NE.
- Bandeira, D. R., Silva, M. A., Mendonca Filho, E. J., **Koziol**, N. A., & Hawley, L. (2018, May). *Development and Validation of the Inventario Dimensional de Avaliacao do Desenvolvimento Infantil (IDADI; Dimensional Inventory for Child Development Assessment)*. Presented at the University of Nebraska-Lincoln/Brazil Early Childhood Partnership Research luncheon, Lincoln, NE.
- Sheridan, S., Knoche, L., Iruka, I., Witte, A., Dekraai, M., Bovaird, J., **Koziol**, N. A., Mackintosh, B. (2018, January). *Learning frontiers PreK to grade 3*. Presented at the Institute of Education Sciences Early Learning Network meeting, Omaha, NE.
- Koziol**, N. A., Bovaird, J. A., & Lee, H. (2015, December). *A comparison of population-averaged and cluster-specific approaches in the context of unequal probabilities of selection*. Presented to the Department of Educational Psychology, University of Nebraska–Lincoln, Lincoln, NE.
- Koziol**, N. A., & Bilder, C. R. (2013, April). *MRCV: A package for analyzing the association among categorical variables with multiple response options*. Presented to the Departments of Statistics and Educational Psychology, University of Nebraska–Lincoln, Lincoln, NE.
- Koziol**, N. A., & Templin, J. (2012, April). *Quantifying the impact of misusing examinee latent variable estimates in item response models*. Presented to the Department of Educational Psychology, University of Nebraska–Lincoln, Lincoln, NE.
- Koziol**, N. A., & Bovaird, J. A. (2010, September). *Evaluating measurement invariance with censored ordinal data: A Monte Carlo comparison of alternative model estimators and scales of measurement*. Presented to the Department of Educational Psychology, University of Nebraska–Lincoln, Lincoln, NE.
- Koziol**, N. A., & Bovaird, J. A. (2009, December). *Using experimental designs to evoke construct validity evidence*. Presented to the Department of Educational Psychology, University of Nebraska–Lincoln, Lincoln, NE.

INVITED TALKS

- Koziol**, N. A. (2017, September). *An introduction to cost-effectiveness and benefit-cost analyses in education research*. Invited speaker for the Methodology Applications Series, Nebraska Academy for Methodology, Analytics & Psychometrics, University of Nebraska–Lincoln.
- Koziol**, N. A. (2014, December). *Analyzing data from complex sampling designs: An overview and illustration*. Invited speaker for the Methodology Applications Series, Nebraska Academy for Methodology, Analytics & Psychometrics, University of Nebraska–Lincoln.
- Koziol**, N. A., & Arthur, A. M. (2011, December). *An introduction to secondary data analysis*. Invited speaker for the Methodology Applications Series, Nebraska Academy for Methodology, Analytics & Psychometrics, University of Nebraska–Lincoln.

SERVICE

University

- 2019 – present Member: UNL Faculty Senate
- 2019 – 2020 Committee Member: CYFS Annual Evaluation Review Committee
- 2018 – present Committee Member: CYFS Data Subcommittee
- 2018 Committee Member: CYFS Database Developer & Analyst Search Committee
- 2017 – present Committee Member: CYFS Data Management Committee
- 2017 – present Program Coordinator: MAP Academy Methodology Application Series

Professional

- 2019 – 2020 Program Co-Chair: American Psychological Association, Division 5
- 2019 Chapter Reviewer: *Basic elements of survey research in education: Addressing the problems your advisor never told you about* edited by Ulemu Luhanga and Allen Gregg Harbaugh, Information Age Publishing
- 2017 Book Reviewer (invited): *Secondary research: A step-by-step guide* by Theresa Morris and Claire Largen, SAGE Publishing (compensated £80.00 to review first four draft chapters)
- 2015 – present Conference Reviewer: *American Educational Research Association, Measurement and Research Methodology Division (AERA Division D)*
- 2015 – 2016 Outside Faculty Rater: Institute for International Teaching Assistants, University of Nebraska–Lincoln
- 2013 – present Ad Hoc Journal Reviewer: *Children and Youth Services Review; Community Development; Journal of Educational Measurement; Journal of Early Childhood Research; Journal of School Improvement; Journal of Survey Statistics and Methodology; Psicológica; Statistics and Its Interface; Structural Equation Modeling – A Multidisciplinary Journal; Survey Research Methods; The Journal of Educational Research*
- 2010 Student Conference Program Committee Member: *American Psychological Association Quantitative and Qualitative Methods Division (APA Division 5)*

PROFESSIONAL AFFILIATIONS

American Educational Research Association (AERA; Division D; Survey Research in Education SIG)
American Psychological Association (APA; Division 5)

TEACHING EXPERIENCE

- 2018, Spring Instructor. EDPS 859: Statistical Methods, University of Nebraska–Lincoln.
- 2017, Spring Guest Lecturer. “Analysis of Complex Survey Data: Sampling, Survey Weights, and Robust Estimation (Part II).” EDPS 991: Advanced Modeling, University of

- 2017, Spring Nebraska–Lincoln. J. Bovaird, Instructor.
 Guest Lecturer. “Evaluating Models: Identification, Fit, and Comparison.” EDPS 971: Structural Equation Modeling, University of Nebraska–Lincoln. J. Bovaird, Instructor.
- 2014, Spring Guest Lecturer. “Overview of Secondary Datasets.” EDPS 995: Doctoral Seminar, University of Nebraska–Lincoln. S. Sheridan, Instructor.
- 2011, Summer Teaching Assistant. “Item Response Theory.” Interuniversity Consortium for Political and Social Research (ICPSR) Summer Institute Workshop, University of Michigan. J. Templin, Instructor.
- 2011, Spring/Fall Instructor. EDPS 459: Statistical Methods, University of Nebraska–Lincoln.

HONORS AND AWARDS

- 2019 Gayle G. Arnold Award for Best Scientific Paper, “*Efficacy of the START-Play Program for Infants with Neuromotor Disorders: Cognitive Outcomes*” (co-author), presented at the 73rd Annual Meeting of the American Academy for Cerebral Palsy and Developmental Medicine, \$2,000 honorarium
- 2011 – 2013 GAANN Fellowship, University of Nebraska–Lincoln, full tuition and stipend
- 2011 John & Elaine Bath Fellowship, University of Nebraska–Lincoln, \$750
- 2011 Folsom Distinguished Master’s Thesis Award, University of Nebraska–Lincoln
- 2010 AERA Division D Student Travel Award, \$1,000
- 2009 APA Student Travel Award, \$300
- 2008 – 2010 Chancellor’s Fellowship, University of Nebraska–Lincoln, \$4,000/year
- 2008 Chancellor’s Scholar: Completion of Degree with a Perfect Cumulative Grade Point Average, University of Nebraska–Lincoln
- 2008 Harry K. Wolfe Award: Most Outstanding Senior Psychology Major, University of Nebraska–Lincoln
- 2007 – 2008 Undergraduate Creative Activities and Research Experiences (UCARE) grant, University of Nebraska–Lincoln, \$2,000
- 2007 Great Plains Student Psychology Convention, Undergraduate Empirical Poster Presentation, 2nd place poster
- 2005 – 2008 Phi Beta Kappa, Psi Chi, and Alpha Lambda Delta National Honor Societies
- 2004 – 2008 Nebraska Top Scholar, University of Nebraska–Lincoln, \$1,500/year
- 2004 – 2008 Regents Scholar, University of Nebraska–Lincoln, full tuition
- 2004 – 2008 Honors Program, University of Nebraska–Lincoln, full textbook scholarship

PRIOR RESEARCH AND WORK EXPERIENCE

- 2015 – 2017 Postdoctoral Scholar
 Nebraska Center for Research on Children, Youth, Families & Schools
 University of Nebraska–Lincoln
- 2014 – 2015 Graduate Research Assistant
 Nebraska Center for Research on Children, Youth, Families & Schools
 University of Nebraska–Lincoln
- 2014 Statistical Consultant
 Alpine Testing Solutions, Inc.
 Orem, UT
- 2012 – 2013 Statistical Consultant
 Nebraska Department of Health and Human Services
 Lincoln, NE

2010 – 2013 Statistical Consultant
 Department of Psychology faculty member at Wilfrid Laurier University
 Ontario, CA

2009 – 2014 Graduate Research Assistant
 National Center for Research on Rural Education (R²Ed)
 University of Nebraska–Lincoln

2008 – 2009 Graduate Assistant
 Buros Center for Testing
 University of Nebraska–Lincoln

TECHNICAL SKILLS

Graduate-Level Quantitative Methods Courses

Applied statistics: Analysis of variance (ANOVA); Bayesian statistics; linear models; multiple regression; multivariate statistics

Latent variable modeling: Item response theory; latent trait measurement models; structural equation modeling; advanced structural equation modeling

Longitudinal data & complex sampling: Multilevel models for longitudinal and repeated measures data; advanced multilevel modeling; survey sampling; survival analysis; time series analysis

Math stats: Distribution theory; statistical inference

Non-normal data: Bootstrap methods; categorical data analysis; generalized linear mixed modeling; nonparametric statistics

Study design: Correlational and experimental methods in educational research; design and analysis of research studies

Other Training

2018, April Propensity Score Analysis. Presented by Statistical Horizons, taught by Shenyang Guo. Philadelphia, PA (2 days).

2017, May IES-Funded CBCSE Methods Training Program in Cost-Effectiveness and Benefit-Cost Analyses for Education (Competitive). Presented by the Center For Benefit Cost Studies in Education at Columbia University (5 days + follow-up webinars).

Software and Programming Languages

Proficient: BILOG-MG, *Mplus*; Optimal Design; R; SAS; SPSS

Familiar: LaTeX; Linux; Matlab; OpenBUGS

Experience with Secondary Databases

NCES Beginning Postsecondary Students (BPS) Longitudinal Study; NCES Common Core of Data (CCD); NCES Early Childhood Longitudinal Study, Birth Cohort (ECLS-B); NCES Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K); NCES Integrated Postsecondary Education Data System (IPEDS); NICHD Study of Early Child Care and Youth Development (SECCYD); OECD Programme for International Student Assessment (PISA)