## **Curriculum Vitae**

## Duan Zhang, Ph.D.

Research Methods and Statistics Program

Morgridge College of Education

University of Denver

1999, E. Evans Avenue, Denver, CO 80208

duan.zhang@du.edu

**EDUCATION**

2005 Ph.D. in Educational Psychology, Texas A&M University

 Specialization: Research, Measurement, and Statistics

*Dissertation: A Monte Carlo Investigation of Robustness to Nonnormal Incomplete Data of Multilevel Modeling*

2002 M. S. in Educational Psychology, Texas A&M University

Specialization: Research, Measurement, and Statistics

2000 B.S. in International Economics

University of International Business and Economics, China

**PROFESSIONAL EXPERIENCES**

2011- present Associate Professor, Research Methods and Statistics Program (formerly QRM), Morgridge College of Education, University of Denver

2009-2012 Program Chair, Research Methods and Statistics Program, Morgridge College of Education, University of Denver

 *Responsible for the planning and management of the Research Methods and Statistics Program. This includes curriculum oversight, student recruitment, faculty supervision and program development.*

2005-2011 Assistant Professor, Quantitative Research Methods Program,

 Morgridge College of Education, University of Denver

*advise MA and PhD students, serve as MA and PhD students’ thesis advisor, and teach graduate level courses:*

QRM 4900 Educational Measurement

QRM 4910 Educational Research and Measurement

QRM 4952 Correlation and Regression

QRM 4956 Hierarchical Linear Modeling

QRM 4925 Structural Equation Modeling

QRM 4957 Latent Growth Curve Modeling

QRM 4921 Survey Research Methods

* 1. Research Assistant, Department of Educational Psychology

Texas A&M University, College Station, TX

**SCHOLARSHIP: Peer-Reviewed Journal Publications**

Franko, M., Zhang, D., & Hesbol, K.A. (2018). *Alignment of learning experiences from Pre-K to kindergarten: Exploring group classifications using cluster analysis*. Journal of Early Childhood Research.

*Doi:* [*https://doi.org/10.1177/1476718X18775761*](https://doi.org/10.1177/1476718X18775761)

Museus, S., Zhang, D., & Kim, M. (2016). Developing and Evaluating the Culturally Engaging Campus Environments (CECE) Scale: An Examination of Content and Construct Validity. *Research in Higher Education*. *Doi:*[*https://doi.org/10.1007/s11162-015-9405-8*](https://doi.org/10.1007/s11162-015-9405-8)

Anyon, Y., Zhang, D, & Hazel, C. (2016). Race, Exclusionary Discipline and Connectedness to Adults in Secondary Schools. *American Journal of Community Psychology*. Doi: [*https://doi.org/10.1002/ajcp.12061*](https://doi.org/10.1002/ajcp.12061)

Hilsendager, C. A., Zhang, D., McRae, C., & Aloia, M. (2015). Assessing the influence of obesity on longitudinal executive functioning performance in patients with obstructive sleep apnea syndrome. *Obesity Research and Clinical Practice.* Doi: [*https://doi.org/10.1016/j.orcp.2015.04.010*](https://doi.org/10.1016/j.orcp.2015.04.010)

Toker, T, & Zhang, D. (2014) Performance Prediction at College Level with Hierarchical Data. *International Journal of Academic Research, 6(4), 182-186*.

Rosenberg, S. A., Zhang, D**.,** & Robinson, C. C. (2008). Prevalence of Development Delays and Enrollment in Early Intervention Services for Young Children. *Pediatrics Electronic Edition*

Hughes, J. N., & Zhang, D. (2007). Effects of the structure of classmates’ perceptions of peers’ academic abilities on children’s perceived cognitive competence, peer acceptance, and engagement. *Contemporary Educational Psychology, 32(3), 400-419.*

Zhang, D., & Willson V. L. (2006). Comparing empirical power of multilevel structural equation models and hierarchical linear models: Understanding Cross-level Interactions. *Structural Equation Modeling: A Multidisciplinary Journal, 13(4), 615-630.*

Hughes, J. N., Zhang, D., Hill, C. R. (2006). Peer assessments of normative and individual teacher-student support predict social acceptance and engagement among low-achieving children. *Journal of School Psychology, 43(6),* 447 - 463*.*

Hughes, J. N., Gleason, K. A., Zhang, D. (2005). Relationship influences on teachers’ perceptions of academic competence in academically at-risk minority and majority first-grade students. *Journal of School Psychology, 43 (4),* 303 - 320*.*

Hughes, J. N., Cavell, T. A., Meehan, B. T., Zhang, D., & Collie, C. (2005). Adverse school context moderates the outcomes of selective interventions for aggressive children. *Journal of Consulting and Clinical Psychology, 73 (4),* 731-736*.*

**SCHOLARSHIP: Peer-reviewed Manuscripts in Process**

Li, J., Zhang, D, Xia, T., Lu, M., & Guo, Y. (under revision for resubmission). Are Low SES College Students More Likely to Suffer Internet Addiction? The Mediating Roles of Subjective Social Class and Self-Esteem. Manuscript under revision to be submitted to CyberPsychology & Behavior.

Zhang. D., & Miller, G. (under revision for resubmission). Assessing parent involvement: a content analysis of current measures. Manuscript under revision for resubmission to Psychology in the Schools.

Zhang, D., Li, J., Shi, K., & Guo Y. (under revision for resubmission). Conspicuous consumption as psychological compensation among low social class Chinese college students. Manuscript under revision for resubmission to Personality and Individual Differences.

Zhang, D., Stansbury, M., Morris, S., & Crist, B. (under revision for resubmission). Supporting parents in early literacy through libraries (SPELL): A Mixed Methods Study. Manuscript under revision for resubmission to School Library Journal.

Tabron, L., & Zhang, D. (under review). Can race-neutral plans help remedy racial stratification in college enrollees at selective public institutions? Lessons from Texas. Manuscript under review at AERA Open.

**SCHOLARSHIP: Sponsored Research and Grants**

2018 Public Good Grant at the University of Denver: *Opening Doors to the Working World for Underrepresented Youth through Documenting K-12 Students’ Professional Competencies with Online Micro-credentials* ($14,787.50, Co-PI with Drs. Erin Anderson and Garrett Roberts), pending under review

2014 Hybrid Teaching Grant from the Office of Teaching and Learning at the University of Denver: “Teaching a hybrid course – Latent Growth Curve Modeling”. ($3,000, I am the PI.)

2012 Colorado Legacy Foundation Grant: *“Documentation of Colorado Expanding Learning Opportunities Practice and Auditing of ELO-Related State Policies”* ($149,875, Co-PI with MCE colleague Dr. Cynthia Hazel)

2012 Institute of Education Sciences Grant: “*An Exploration of Novice Teachers’ Core Competencies*” ($987,152 with the MCE colleague Dr. Kent Seidel being the PI).

 *I am the statistician and methodologist on the project which seeks to provide additional in-depth information describing the relationship between novice teachers' core competencies and student outcomes*.

2010 Ford Foundation Grant: “*Multiple Pathways” Model Development: A Comprehensive Local, State, and National Scan of Assets, Needs, and Partnerships for Denver Public Schools”* ($250, 000, Co-PI with five other MCE colleagues).

*The funded project aimed at conducting a comprehensive third-party scan of capacity and needs in the Denver Public Schools district, its schools, and communities in order to identify how and where a significant investment of grant funding might be most effective in leveraging positive change in DPS.*

2010 Morgridge Family Foundation Grant: “*SynapticMash Partnership in 21st Century Classroom”*. ($100,000, Co-PI with Dr. Karen Riley).

*The funding provided a three-year license for the Morgridge College of Education, of SynapticMash, a proprietary learning management system, to train students on instructional pedagogy, data-driven decision making procedures and engage educational community partners in collective research efforts on program evaluation.*

2009 Professional Research Opportunities for Faculty (PROF) Grant at the University of Denver: *The Impact of Family Practice and Parent Involvement on Children’s Development of Academic Competencies: Findings from ECLS-K* ($14, 111, I am the principal investigator).

 *The grant supports my ongoing research examining the impact of parent involvement on academic outcomes using large-scale national datasets sponsored by National Center for Educational Statistics*

2009 Center for Teaching and Learning Grant at the University of Denver: *Teaching Research Methods and Statistics with Interactive White Board* ($500, I am the principal investigator).

2008 NIH R03 Grant: *Impact of an Evidence-based Treatment Policy on Youth Mental Health Outcomes* ($149, 942 with Dr. Amanda Jensen Doss at Texas A&M University being the PI)

 *I am the statistician and methodologist on the project which seeks to utilize an existing administrative dataset to assess the impact of the Resiliency and Disease Management initiative on the treatment outcomes of 4,207 children (ages 4-18) treated in a large County-level Mental Health and Mental Retardation Authority facility.*

2008 Public Good Grant at the University of Denver: *Process Evaluation of Project Homeless Connect* ($8950, Co-PI with Dr. Sylvia Hall-Ellis).

 *Project Homeless Connect is a partnership of Denver Mayor’s office, Department of Human Services, and Mile High United Way. The grant was funded to evaluate this one-day event helping homeless people overcome barriers to self-sufficiency through a full array of community services at the Ritchie Center of the University of Denver.*

2008 Proposal Funded by NECS to attend the Training Workshop of Early Childhood Longitudinal Study: Birth Cohort in Washington D.C.

2007 Public Good Grant at the University of Denver: *Process Evaluation of Project Homeless Connect* ($5407.54, Co-PI with Dr. Sylvia Hall-Ellis).

*Project Homeless Connect is a partnership of Denver Mayor’s office, Department of Human Services, and Mile High United Way. The grant was funded to evaluate this one-day event helping homeless people overcome barriers to self-sufficiency through a full array of community services at the Denver Bronco’s Field.*

2007 COE Dean’s Office Grant at the University of Denver ($1500)

1. Internationalization Small Grant at the University of Denver ($500)

**SCHOLARSHIP: Peer-Reviewed Conference Presentations (\*work with students)**

1. Zhang, D. (2018). Assessing Parent Involvement: A Content Analysis of Current Measures. Poster presented at the Annual Convention of American Psychological Association, San Franscico, CA.
2. \*Pearcy, K., & Zhang, D. (2018). Effects of Executive Functioning on Math Achievement: A LGCM Analysis from Kindergarten to 2nd Grade. Poster presented at the Annual Convention of American Psychological Association Convention, San Francisco, CA.
3. Zhang, D. (2018) The Effects of Home Activities on Math Achievement in Elementary School. Poster presented at the Annual Meeting of American Educational Research Association, New York City.
4. \*Burke, I., & Zhang, D. (2018). Embracing Uncertainty: Defining a Structural Model of Public Library Use and Services Using Large-Scale Public Use Data. Paper presented at the 2018 Empirical Librarians Conference at the University of Tennessee at Knoxville, Knoxville, Tennessee.
5. \*Burke, I., & Zhang, D. (2015). Statistical Categorization Methods as Applied to Geographic Data. Poster presented at the International Meeting of Psychometric Society, Beijing, China.
6. \*Zhang, D., & Tobiassen, C. (2015). Latent Growth Curve Modeling of Math Achievement and Home Practice in Elementary School. Poster presented at the International Meeting of Psychometric Society, Beijing, China.
7. Song, S., Hazel, C., & Zhang, D. (2015). Emotional Disturbance and School Success: Preventing High School Dropout. Paper Presented at the National Conference for School Psychologists, Walt Disney Resort, FL.
8. Zhang, D., Stansbury, M., & Crist, B. (2014). Supporting Parents in Early Literacy through Libraries, Poster presented at the Society for Child Development Special Topic Meeting titled “Strengthening Connections among Child and Family: Research, Policy and Practice”, Washington DC.
9. Olmos, A., Zhang, D, & Seidel, K. (2013). Measuring Core Competencies of Teaching with Novice Teachers: Relationships with Student Achievement. Paper presented at the Annual Meeting of American Educational Research Association, San Francisco, CA.
10. \*Toker, T., & Zhang, D. (2012, May). Performance Prediction at College Level with Hierarchical Data. Paper presented at the annual meeting of the Educational Research Association, Istanbul, Turkey.
11. \*Zhang, D., & Lin, M. (2011). Does Parent Involvement Mediate the Impact of Family SES and Parents’ Well-being on School Readiness? Findings from ECLS-B. Paper to be presented at the Annual Meeting of American Educational Research Association, New Orleans, LA.
12. \*Zelenka, A., Zhang, D., & Lin, M. (2011). Do Cultural Values Moderate the Effect of Liking-for-Math on Math Achievement? A Cross-Country Study Using HLM. Paper to be presented at the Annual Meeting of American Educational Research Association, New Orleans, LA.
13. \*Zelenka, A., Zhang, D., & Lin, M. (2011). Cross-National Patterns of Mathematics Attitudes: An Investigation of Measurement Invariance Based on Response Style. Paper to be presented at the Annual Meeting of American Educational Research Association, New Orleans, LA.
14. Rosenberg, S. & Zhang, D. (2010). A Rigorous Definition of Developmental Delay. Session 2 of the Webinar Series on Early Identification and Part C Eligibility sponsored by National Early Childhood Technical Assistance Center (NECTAC).
15. Zhang, D. (2010). The Factor Structure of Parent Involvement in Elementary School. Paper to be presented at the Annual Meeting of American Psychological Association, San Diego, CA.
16. \*Miller, G., Zhang, D., Ani, L., & Chen, H. (2009). Understanding Parent Involvement: A Content Analysis of Current Measures. Paper presented at the Annual Meeting of National Association of School Psychologists (NASP), Boston, MA.
17. Zhang, D. (2008, March). The Decreasing Gap between Asian American and European American Students’ Math Achievement: Does Parent Involvement Make a Difference? Paper presented at the Annual Meeting of American Educational Research Association (AERA), New York, NY.
18. \*Zhang, D., Chen, H. (2007, April).Racial and ethnic differences on parent involvement and children’s achievement growth in kindergarten: Findings from ECLS-K. Paper presented at the Annual Meeting of the Society for Research in Child Development (SRCD), Boston, MA.
19. Zhang, D., Willson, V. L. (2006, June). Evaluating factor structure stability from summary data: A Monte Carlo investigation. Paper presented at the 71st Annual Meeting of the Psychometric Society (IMPS 2006), Montreal, Canada.
20. Zhang, D., Willson, V. L. (2006, April). A Monte Carlo investigation of robustness to nonnormal incomplete data of multilevel modeling. Paper presented at the 2006 Annual Meeting of the American Educational Research Association, San Francisco, CA.
21. Zhang, D., O’Dell, L. (2006, February). Determinants of first-year teachers’ preparedness: A structural equation model. Paper presented at the 2006 Annual Meeting of the Southwest Educational Research Association, Austin, TX.
22. Zhang, D., Willson, V. L., & Hughes, J. N. (2005, August). Comparing two propensity matching methods in an Observational Study. Paper presented at the 2005 Annual Meeting of the American Psychological Association, Washington DC.
23. Willson, V. L., Hughes, J. N., Zhang, D., & Gleason, K. A. (2005, August). Who is retained in first grade: A psychological Perspective. Paper presented at the 2005 Annual Meeting of the American Psychological Association, Washington DC.
24. Zhang, D., Hughes, J. N., & Wong, S. W. (2005, May). The contextual effect of classroom indegree of smartness on the relationship between children’s achievement and their preference by peers and teachers. Paper presented at the 13th Annual Meeting of the Society for Prevention Research, Washington DC.
25. Zhang, D. & Willson, V. L. (2005, April). The influence of randomness of missing data in hierarchical linear modeling. Paper presented at the 2005 Annual Meeting of the American Educational Research Association, Montreal, Canada.
26. Zhang, D., & Moseley, S. (2005, April). The role of family background in predicting grade retention above child competence factors. Paper presented at the 2005 Biennial Meeting of the Society for Research in Child Development, Atlanta, GA.
27. Lockwood, L. A., & Zhang, D. (2005, April). Effect of grade retention on school engagement. Paper presented at the 2005 Biennial Meeting of the Society for Research in Child Development, Atlanta, GA.
28. Zhang, D., Martin, J. D., & Willson, V. L. (2005, February). Applying IRT models to essay data: Partial credit or graded response model? Paper presented at the 27th Annual Meeting of the Southwest Educational Research Association, New Orleans, LA.
29. Zhang, D. & Willson, V. L. (2004, June). Empirical Power and Type I Error Rates for Cross-Level Interactions in Multilevel Analysis. Paper presented at the 69th Annual Meeting of the Psychometric Society, Monterey, CA.
30. Zhang, D. & Willson, V. L. (2004, April). Power for Cross-level Interactions in Multilevel Analysis- HLM versus SEM and Hybrid HLM-SEM Models. Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.
31. Hughes, J., Cavell, T., Meehan, B., Zhang, D., & Kwok, O. (2004, May). Differential Effectiveness of Two Mentoring Interventions for Aggressive Children in Schools Differing in Adversity. Paper presented at the 12th Annual Meeting of the Society for Prevention Research, Quebec City, Canada.
32. O’Dell, L., Zhang, D., Wang, Z., & D' Esposito, S. (2003, September). First-year Teachers Preparedness for the Classroom: An Extended Study of Perceptions from two perspectives. Paper presented at the Texas A&M University System’s Seventh Annual Conference on School-University Partnerships, San Antonio, TX.
33. Willson, V. L. & Zhang, D. (2003, April). Comparing HLM, HLM-SEM, and Residual SEM Analyses for Multilevel Models. Paper presented at the 84th Annual Meeting of the American Educational Research Association, Chicago, Illinois.

O’Dell, L. L., Goetz, E. T., Zhang, D. Lee, D. & Mohundra, J. (2002, October). First-year Teachers Preparedness for the Classroom: Perceptions from Two Perspectives. Paper presented at the Texas A&M University System’s Sixth Annual Conference on School-University Partnerships, San Antonio, Texas.

**Scholarship: Professional Outreach and Service**

2018 – present **Manuscript Reviewer**, Behavioral Research Methods

2013 – present **Manuscript Reviewer**, Physical Therapy Journal

2010 **Session Chair**, SEM SIG of American Educational Research Association Annual Conference

2008 - present **Manuscript Reviewer**, British Journal of Mathematical and Statistical Psychology

2009 **Book Manuscript Review**, Guilford Publications

2007 – present **Manuscript Reviewer**: Journal of Educational and Behavioral Statistics

2007 – 2009 **Presentation Reviewer**: American Educational Research Association Annual Conference

2007 **Invited Instructor** on Survey Research, Texas A&M University Summer Institute on Statistics and Research Methods

2007-2008 **Guest Instructor** on Educational Research Foundations, Summer Semester in the Department of Educational Psychology at Texas A&M University

2005- present **Manuscript Reviewer**: Journal of Educational Psychology

2003 – 2005 **Ad-hoc Reviewer**: American Educational Research Journal

**Selected University and Morgridge College of Education (MCE) Service**

# 2014 Member of the University Sponsored Programs Academic Research Council (SPRAC)

2014 Member of the search committee for the associate professor in Counseling Psychology

2014 Member of the search committee for the associate professor in educational leadership and policy studies.

2014 Member, MCE Appointment and Promotion Committee

2013 Member of the Faculty Advisory Group for the Interdisciplinary Center for Data Analysis and Information Visualization

2010 Member, Review Panel for the Professional Research Opportunities for Faculty (PROF) Grant at the University of Denver

2011-2012 Member, MCE Appointment and Promotion Committee

2009-2010 Member, Search Committee for Assistant Professor in Quantitative Research Methods

2007-2010 Member, MCE Research and Scholarship Committee

2007-2008 Member, Search Committee for Assistant Professor in Child, Family, and School Psychology and Director for Center for Reading Recovery

2007- 2009 MCE Building Planning Committee

2006-2007 Member, MCE Appointment and Promotion Committee

2006-2009 Member, MCE Program Planning and Review Committee

2005-2006 Member, Counseling Psychology Assistant Professor Search Committee

2005-2006 Member, MCE Research and Scholarship Committee

2005-2006 Member, MCE Diversity Committee

**Professional Development Training**

2010 Proposal funded by Institute of Educational Sciences to attend the workshop on Quasi-Experimental Design and Analysis in Education, taught by Tom Cook at Northwestern University, Evanston, IL.

2009 Propensity Score Analysis: Applications for Social Work Research. The Graduate School of Social Work at the University of Denver

2008 Mplus Short Course on Multilevel Modeling with Latent Variable, taught by Muthen and Muthen, at John Hopkins University.

2007 Proposal Funded by NECS to attend the Training Workshop of Early Childhood Longitudinal Study: Birth Cohort in Washington D.C.

2006 Proposal Funded by AERA to attend the Statistical Institute at the Annual Meeting of American Educational Research Association

2006 Proposal Funded by NECS to attend the Training Workshop of Early Childhood Longitudinal Study: Kindergarten Cohort in Washington D.C.

2005 Advanced Training Institute on Longitudinal Structural Equation Modeling for the American Psychological Association, taught By Dr. Jack McArdle at the University of Virginia, Charlotte, VA.

**PROFESSIONAL AFFILIATION**

American Educational Research Association

Society of Research in Child Development

American Psychological Association

Psychometric Society

**Honors and Awards**

* Dissertation of the Year, College of Education and Human Development, Texas A&M University, May 2006.

**STATISTICAL SOFTWARE EXPERTISE**

General Programs - SAS, SPSS

Structural Equation Modeling - MPLUS, AMOS, EQS

Multilevel Modeling - HLM, SAS PROC MIXED