Devdass Sunnassee

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1. EDUCATION

Ph.D., Educational Research Methodology – University of North Carolina Greensboro– 2011
Dissertation Title: Conditions Affecting the Accuracy of Classical Equating Methods for Small Samples Under the Neat Design: A simulation Study
Advisor: Richard M. Luecht, Ph.D.

MS., Applied Mathematics – North Carolina Agricultural and Technical University – 2004

B.Ed., Mathematics – University of Mauritius, Republic of Mauritius – 1997

Teacher's Diploma., Mathematics and Physics – Mauritius Institute of Education, Republic of Mauritius – 1982

Licensure: *Republic of Mauritius*: Mathematics Middle – Pre-University, High School Advanced Physics, Pre-University Probability and Statistics

2. LANGUAGE ABILITIES

Language	Proficiency (productive and receptive)
Creole	Native
English	Near-native
French	Near-Native
Hindi	Intermediate

3. PROFESSIONAL EXPERIENCE

2014 – present **Supervisor and Coordinator**, Office of Assessment, Evaluation and Research Services (OAERS)

2013 – 2014 **Supervisor**, Office of Assessment, Evaluation and Research Services (OAERS)

2013 – present **Assistant Clinical Professor**, University of North Carolina at Greensboro, Educational Research Methodology Department in the School of Education, Greensboro, North Carolina

ERM 668: Survey Research Methods in Education
ERM 681: Design and Analysis of Educational Experiments
ERM 680: Intermediate Statistical Analysis in Education
ERM 604: Methods of Educational Research
ERM 517: Statistical Methods in Education

2011 – 2013 **Visiting Professor**, University of North Carolina at Greensboro, Educational Research Methodology Department in the School of Education, Greensboro, North Carolina

Courses Taught:
ERM 517: Statistical Methods in Education
ERM 681: Design and Analysis of Educational Experiments
ERM 680: Intermediate Statistical Analysis in Education
ERM 604: Methods of Educational Research

2009 – 2010 **Adjunct Faculty,** University of North Carolina at Greensboro, Educational Research Methodology Department in the School of Education, Greensboro, North Carolina

Courses Taught:
ERM 517: Statistical Methods in Education
ERM 604: Methods of Educational Research

2005 – 2009 **Teaching Assistant,** University of North Carolina at Greensboro, Educational Research Methodology Department in the School of Education, Greensboro, North Carolina

Courses tutored:
ERM 680: Intermediate Statistical Analysis in Education
ERM 681: Design and Analysis of Educational Experiments
ERM 682: Multivariate Analysis
ERM 732: Hierarchical Linear Modeling

1984 – 1995   **Head of the Department of Physics** – Curepipe College, Republic of Mauritius

1985 – 1998   **Deputy Head of the Department of Mathematics** – Curepipe College, Republic of Mauritius

4. TEACHING - University of North Carolina Greensboro

2014 – present   ERM 668: Survey Research Methods in Education

2011 – present   ERM 681: Design and Analysis of Educational Experiments
ERM 680: Intermediate Statistical Analysis in Education

2010 – present   ERM 604: Methods of Educational Research

2009 – Present   ERM 517: Statistical Methods in Education

5. TEACHING - Curepipe College, Republic of Mauritius

1979 – 1998   Mathematics (Algebra I, II, Vector Geometry and Matrices, Trigonometry, Calculus I, Calculus II, Complex Numbers, Abstract Algebra, Matrix Algebra)

1979 – 1998   Physics (Mechanics, Heat, Magnetism, Electricity, Waves, Optics)

1979 – 1984   Chemistry

1979 – 1984   Integrated Science

1979 – 1982   French

6. SCHOLARSHIP

Publications

PH.D. Dissertation (2011):
Conditions Affecting the Accuracy of Classical Equating Methods for Small Samples Under the Neat Design: A Simulation Study

MS. Thesis (2004):
A Solution Method for the Transient Temperature Distribution in Multi-Layer Composite Solids in the One-Dimensional Case

<u>B.Ed. Capstone Thesis (1997)</u>:
A study of the factors influencing pupils' choice of paper in Mathematics at Principal Level for the Cambridge Higher School Certificate (H.S.C) Examinations Syllabus 9200

<u>Article I (in preparation)</u>:
Classical Equating Methods for Small Samples - What works or fails under the NEAT design

<u>Article II (in preparation)</u>:
About the Invariance of Classical Equating Methods for Small Samples under the NEAT Design based on Proficiency Levels

Conference Papers and Posters

Sunnassee, D. (2013). Conditions Affecting the Accuracy of Classical Equating Methods for Small Samples Under the Neat Design: A Simulation Study. Paper Presented at the Annual Meeting of the National Council of Measurement in Education, San Francisco, CA.

Sunnassee, D., Proctor, T.P., & Godfrey, K.E. (2011). A Method to Detect Answer-Copying from a Test Center Perspective Poster Presented at the annual meeting of the National Council of Measurement in Education, New Orleans, LA.

Shu, Z., Henson, R., Sunnassee, D., & Dallas, A. (2011). Ellipse-Arc Equating Method for Small Sample Size Tests. Paper Presented at the Annual Meeting of the National Council of Measurement in Education, New Orleans, LA.

Shu, Z., Sunnassee, D., & Dallas A. (2010). Ellipse-Arc Equating As An Alternative Method For Small Sample Tests. Paper Presented at 2010 Psychometric Society Conference in Athens, Georgia.

Wang, X., Shu, Z., & Sunnassee, D. (2010). Incorporating the DINO Model in the Artificial Neural Network: An Alternative of Small Sample Diagnostic Classification.

Sunnassee,D., Shu, Z. (2009). Equating accuracy using small samples in the single group design: A comparison of circle-arc equating with traditional observed score equating methods. Paper Presented at the Annual Meeting of the National Council of Measurement in Education, San Diego, CA.

7. SELECTED CONSULTING SERVICES
denotes providing supervision to ERM graduate Students

2012 – present*   Help Desk, Center for Educational Research and Evaluation, School of Education

2011   Alamance County School District, North Carolina
Designed the sampling procedure for the district's upcoming norming projects

2011 – 2012*   Winston Salem Forsyth County School District (WSFCSD)
Benchmark Analyses: Reading (7th Grade) and Biology (High School) - A Psychometric Analysis of the Quarterly Assessments for the Year 2010-2011

2011 – 2012*   Winston Salem Forsyth County School District
Statistical Analysis of 5th and 8th Grades Science End of Grade Test Scores for the WSFCSD. The study included the investigation of the effect of such factors as Title1 status, gender, ethnicity, Limited English Proficiency on the Science EOG scores.

2012 – 2013*   Winston Salem Forsyth County School District
Modeling Characteristics of Teacher Effectiveness using Educational Value-Added Assessment System (EVASS) data for the WSFCSS

2012 – 2013*   Winston Salem Forsyth County School System
Modeling an Early Warning System for at Risk High School Drop Outs for the WSFCSS

2012 – 2013*   Winston Salem Forsyth County School District (WSFCSD)
Benchmark Analyses: Reading (4th and 5thGrade) and Math (4th and 5th Grade) - A Psychometric Analysis of the Quarterly Assessments for the Year 2012-2013

2013 – 2014*   Winston Salem Forsyth County School District (WSFCSD)
Benchmark Analyses: Biology I (High School) - A Psychometric Analysis of the Quarterly Assessments for the 2013 Fall semester

2013 – 2014*   Winston Salem Forsyth County School District (WSFCSD)
Benchmark Analyses: Math I (High School- block and regular schedule, 7th and 8th grade) - A Psychometric Analysis of the Quarterly Assessments for the 2013 Fall semester

2013 – 2014*   Winston Salem Forsyth County School District (WSFCSD)
Benchmark Analyses: Civics and Economics (High School) - A Psychometric Analysis of the Quarterly Assessments for the 2013 Fall semester

2013 – 2014	Led the preliminary Sampling Design Project for the administration of the IDI survey for the Quality Enhancement Plan (QEP) for the University of North Carolina at Greensboro
2014 – 2015	Led the Sampling Design Project for the administration of the writing prompt to provide direct measures of the level of global engagement and intercultural competencies of the student body at UNCG as part of the Quality Enhancement Plan (QEP) for the University of North Carolina at Greensboro
2014 – 2015*	Updating the Exploratory Analysis of South Carolina Student Improvement Grant (SC SIG) Cohort 1 Longitudinal Student Achievement
2014 – 2015*	Evaluation of the US Lacrosse Level One Certification Program
2014 – 2015*	Analysis to establish the norms for comparison groups for the Leadership analytics tool & services Project for the Center for Creative Leadership
2014 – 2015*	Analysis to establish the norms for comparison groups for the Leadership analytics tool & services Project for the Center for Creative Leadership
2014 – 2015*	Statistical modeling of predictors of Leadership Tier Project for the Center for Creative Leadership

8. UNCG SERVICE / ADMINISTRATIVE RESPONSIBILITIES

2014 – present	Supervisor and Coordinator of the (OAERS) Office of Assessment, Evaluation and Research Services
2014 – present	Member of the Global Engagement Implementation Advisory Committee (GEIAC).
2014	Member of the search committee for assistant/associate professor position ERM – 2015
2013 – 2014	Supervisor in the (OAERS) Office of Assessment, Evaluation and Research Services
2013 – present	Member of the Faculty Access and Equity Committee
2013 – 2014	Member of the School of Education International Committee

2013 – present	Member of the Quality Enhancement Plan Assessment Group
2012 – present	Member of the Coalition for Diverse Language Communities
2012 – 2013	Ad-hoc member of the School of Education Faculty Research Council
2013 – present	Member of the School of Education Faculty Research Council
2011	Participated as ad-hoc member of the search committee for Chair of the ERM department
2011	Participated as a member of the search committee for associate professor position ERM – 2011
2012 – present	Managing the Help Desk of the Educational Research Center, School of Education

- Meeting and communicating with clients about their projects

- Supervising ERM Students assisting with the Centre for Educational Research and Evaluation Help Desk

- Directing clients to Assistants Consultants for assistance with their projects

- Coordinating with Faculty in ERM on projects or issues that require their expertise

2013 – present	Serving as advisor to M.S. students
2013 – present	Serving on external dissertation committees
2013 – present	Serving on dissertation committees in the ERM department
2012 – present	Serving on MS/ PhD comprehensive examination committees
2009 – 2010	President of the Graduate Educational Research Methodology Student Association

9. CUREPIPE COLLEGE SERVICE / ADMINISTRATIVE RESPONSIBILITIES

1984– 1995	Head of the Department of Physics
1985 – 1998	Deputy Head of the Department of Mathematics

- Provided assistance to the principal in matters relating to Mathematics and Science teaching
- Initiated the introduction of the Additional Mathematics (Calculus, Algebra, Trigonometry) which led to significant increase in the number of seniors taking Advanced and Pre-University level Courses

- Revived the department of Physics which was on the verge of losing its funding from the government

- Initiated and implemented cost-cutting initiatives in the Physics department, resulting in more than 50% cost reduction

- Mentored and facilitated the integration of new and trainee teachers

10. AWARDS AND RECOGNITIONS

2009	Proposal Reviewer, National Council on Measurement in Education
2008 – 2009	Recipient of the Helena Gabriel Houston Scholarship
2010 – 2011	Recipient of the Helena Gabriel Houston Scholarship
2004	Recognized for Best MS Thesis in Applied Mathematics

11. PROFESSIONAL AFFILIATIONS

2007 – Present   American Educational Research Association: Division D
                                                  SIGs – Educational Statisticians
                                                        Longitudinal Studies
                                                        Multilevel Modeling
                                                        Rasch Measurement
                                                        Survey Research in Education

2007– Present   National Council on Measurement in Education

12. TECHNICAL SKILLS

Psychometrics: Classical Test Theory, Test Equating, IRT Modeling for Dichotomous and Polytomous Data, Multidimensional IRT Modeling, Differential Item Functioning, Model Estimation

<u>Software proficiencies</u>:

BILOG, MULTILOG, WINSTEPS, TESTGRAF, ICL, NOHARM, DETECT, DIMTEST, TESTFACT, POLYEQUATE, CIPE, RAGE-EQUATE, R-Packages

Statistics: Multivariate Analysis, Linear and non-linear Factor Analysis, Structural Equation Modeling, Mixed Models, Longitudinal Data Analysis, Nonparametric Statistics, Design of Experiments, Sampling Designs, Categorical Data Analysis

<u>Software Proficiencies</u>:

SPSS, SAS, R, LISREL, HLM, JMP, G-POWER

Programming Language Knowledge

FORTRAN, VISUAL BASIC, MATLAB, (also R)