

ERME Emeritus Faculty Lecture Series

Date: November 10, 2008
Speaker: Dr. George Madaus, ERME Emeritus Faculty
Title: The Sociology of Testing
Topic: The different facets of testing that do not get the attention they deserve by those in the testing community; how Dr. Madaus came to this belief; and why a sociology of testing is needed.

Date: November 7, 2007
Speaker: Dr. Albert Beaton, Augustus Long Professor Emeritus, Lynch School of Education
Topic: Dr. Beaton's recent work.

Student Representative Series

Date: April 6, 2009
Title: Conference Presentation Practice Lunch
Coordinator: Jessica Brown, ERME Student Representative
Sponsor: Graduate Student Association
Description: This is a great opportunity for anyone attending the LSOE research forum, AERA, NEERO or another upcoming conference. If you want to practice your speech or show off your poster and receive feedback from your peers then this is your chance. Each oral presenter will be given 15 minutes with an additional 5 minutes for feedback. Posters will be given time before and after the oral presenters.

Date: April 2, 2009
Title: Faculty & Student Research Discussion Brown Bag
Coordinator: Jessica Brown, ERME Student Representative
Sponsor: Graduate Student Association
Description: This is an informal Brown Bag event for faculty and students to come together to discuss their current research projects, manuscripts, or other academic work. Often times we do not get the chance to talk about the latest happenings with our work, so please come any time during the hour to listen or share.

Brown Bag Lunch Discussion Series

Date: April 1, 2009
Speaker: [Dr. Walter Haney](#), ERME Department
Title: Statistics in Legal Proceedings: Court Cases and Hearings
Topics: Walt Haney's experience as an expert witness in court cases and hearings; How to use statistical analyses in legal proceedings; What goes into an expert witness report for legal proceedings; How to prepare a report for legal proceedings; How to prepare a sophisticated but nontechnical statistical argument to a judge; Testifying for legislatures; The variety of ways statistical analyses are handled in court cases; Using statistics to show disparate impact and educational inadequacy.

Date: March 16, 2009
Speaker: [Dr. Spyros Konstantopoulos](#), ERME Department
Title: Constructing More Powerful Tests for Treatment Effects in Nested Designs
Abstract: Field experiments that involve nested structures frequently assign treatment conditions to entire groups (such as schools) or to subgroups (such as classrooms) within groups. A key aspect of the design of such experiments includes knowledge of the clustering effects that are often expressed via intraclass correlations. This study provides methods for constructing more powerful tests for treatment effects in cluster and block randomized designs. When the intraclass correlation structure is assumed to be known the proposed test provides higher estimates of power than those obtained from the typical test based on group/cluster means, because it preserves the degrees of freedom associated with the number of units in lower levels. The gain in power is smaller in heterogeneous populations or when the variance of the treatment effect is larger. The advantage in power estimates is more pronounced in homogeneous populations (e.g., low-achieving, rural schools) or when the treatment effect is consistent (and its variance is small).

Date: March 11, 2009
Speaker: [Dr. Ismael E. Carreras](#), Research Director, Eidetics - A Division of Quintiles Consulting (ERME PhD 1998, Part-time ERME Instructor 2009)
Title: Fractional Factorial Experimental Designs: Applications for the Social Sciences
Description: Fractional factorial experimental designs allow research to explore causal relationships with more factors than what is normally feasible with full factorial designs. This session will introduce some of the theory behind

fractional factorials, and walk through examples of how they are carried out in practice.

Date: January 30, 2009

Speaker: [Dr. Jack Buckley](#), Associate Professor of Applied Statistics, Steinhardt School of Culture, Education, and Human Development, New York University

Title: Cross-National Response Styles in International Educational Assessments: Evidence from PISA 2006

Date: January 13, 2009

Speaker: [Yi Shang](#), ERME Doctoral Candidate and Spring 2009 Instructor

Title: Measuring Student Growth with the Conditional Growth Chart Method

Description: This paper borrows ideas from pediatric reference growth charts. We introduce unconditional and conditional reference growth charts based upon student assessment outcomes. We demonstrate how diagnostic conceptualizations and uses of longitudinal data fostered by reference growth charts can enable intelligent discussions amongst various stakeholders about student growth and its relationship to overall education quality. We also combine the conditional growth chart method with the simulation -extrapolation method to correct for measurement error-induced bias. Simulation and empirical data analysis results are both presented.

Date: November 17, 2008

Speaker: [Dr. John F. Olson](#), Senior Research Associate, TIMSS & PIRLS International Study Center

Title: Establishing the Validity of Test Accommodations for Students with Disabilities: A Collaboration of State-based Research

Description: In late-2007, with Connecticut serving as lead state and the support of the Council of Chief State School Officers, a large consortium of states from the Assessing Special Education Students and Technical Issues in Large Scale Assessment groups of the State Collaboratives on Assessment and Student Standards program began participating in a special project funded by an Enhanced Assessment Grant from the U.S. Department of Education to conduct research on the validity of test accommodations. Dr. Olson is serving as Principal Investigator for the CT EAG project. NCLB requires that states offer accommodations on the grade-level assessment so that the test is accessible to as many students with disabilities as possible. However, little research has been conducted on the validity of accommodated score interpretations or the effectiveness of test accommodations. In this project, studies are being conducted in multiple states on a variety of commonly-used

accommodations so that the results can be used to build a collaborative body-of-evidence for the validity of the interpretation of accommodated scores. This project is being coordinated across states using a rigorous empirical research design. In this presentation, preliminary results from a comprehensive analysis of one state's data will be shared, findings from the validity studies will be discussed, and plans for the development and dissemination of a project guidebook, technical report, and associated database providing information on research designs, procedures, statistical data, findings, recommendations, and other details will be shared with the audience.

Date: October 8, 2008

Speaker: [Dr. Spyros Konstantopoulos](#), ERME Department

Title: Incorporating Cost in Power Analysis for Three-Level Cluster Randomized Designs

Abstract: In experimental designs with nested structures entire groups (such as schools) are often assigned to treatment conditions. Key aspects of the design in these cluster randomized experiments include knowledge of the intraclass correlation structure and the sample sizes necessary to achieve adequate power to detect the treatment effect. However, units at each level of the hierarchy have a cost associated with them and thus researchers need to decide on sample sizes given a certain budget, when designing their studies. This paper provides methods for computing power within an optimal design framework (that incorporates costs of units in all three levels) for three-level cluster randomized balanced designs. The optimal sample sizes are a function of the variances at each level and the cost of each unit. Overall, larger effect sizes, smaller intraclass correlations at the second and third level, and lower cost of level-3 and level-2 units result in higher estimates of power.

Date: May 7, 2007

Speakers: [Dr. Damian Betebenner](#), ERME Department
[Yi Shang](#), ERME Doctoral Candidate

Title: Reference Growth Charts for Educational Outcomes

Abstract: The availability of individual longitudinal data from state assessments has given rise to a multitude of statistical analysis techniques that take advantage of this rich data source. The November 2005 announcement by Secretary of Education Spellings that growth modeling would be considered as a means for states to measure compliance with NCLB achievement mandates has further expanded the family of techniques under consideration. Given the

focus on school accountability and the assignment of responsibility for achievement outcomes, most models used today are deterministic in both their formulation and implementation. We contend that the use of such deterministic models has led to a “blind spot” concerning other uses of longitudinal test data, particularly for descriptive/diagnostic purposes. In this paper, borrowing ideas from pediatric reference growth charts, we introduce unconditional and conditional reference growth charts based upon student assessment outcomes. We demonstrate how diagnostic conceptualizations and uses of longitudinal data fostered by reference growth charts can enable intelligent discussions amongst various stakeholders about student growth and its relationship to overall education quality.

Date: March 12, 2007

Speaker: [Dr. Tzur Karelitz](#), University of California at Berkeley, Graduate School of Education, Berkeley Evaluation & Assessment Research (BEAR) Center

Title: Exploring evidence for a theoretical linkage between age-consecutive developmental assessments.

Abstract: The Desired Results Developmental Profile (DRDP) is a set of observational assessment instruments designed to track children progress in three age groups: Infant/Toddlers(I/T), Preschoolers (PS) and School-Age (SA). The three age-specific DRDPs were developed for, and implemented in, various state-funded day-care centers, preschools and after-school programs throughout California. The DRDP instruments provide practitioners, policy makers and researchers valuable information about children socioemotional, cognitive, physical and behavioral development. The three DRDPs are designed to measure the same underlying constructs, where each instrument assesses important and observable behaviors within the age group it was designed for. However, a development perspective across age groups is also needed. For example, it is important to identify children who are in the transition stage between instruments (e.g., enter preschool before age 3, or leave preschool after age 5). Similarly, a cross-instrument perspective is important for assessments in special education. Therefore, another goal in the DRDP development was to reliably assess constructs across age groups, using age-consecutive items. The relationship between age-specific assessments of the same construct can be represented by a design structure that links three DRDPs. In this talk I will present the process of establishing a validity argument about the continuity of constructs across the DRDP instruments. In the first part of this talk, I will describe the principles that guided the development of the linkage structure and the challenges we faced

in identifying links across instruments. In the second part of the talk, I will present data to support the linkage structure and the methodology used to empirically evaluate it using Item Response Theory.

Date: February 6th, 2007
Speaker: **Dr. Damian Betebenner**, ERME Department
Title: Reconceptualizing Accountability Systems Using Stochastic Models of Change
Abstract: State accountability systems utilize assessment outcomes to audit and ultimately assign blame for unacceptable performance to schools. There have been numerous criticisms concerning the causal inferences that assign responsibility for low performance squarely on schools. Recently, Linn (2006) and Edley (2006) have suggested less punitive uses of accountability system results, proposing, what Edley terms, a "regulatory framework". This talk will outline this regulatory approach and provide details of a class of stochastic models (mixed Markov latent class models) which produce results that align with such a regulatory approach.

Date: November 20, 2006
Speaker: **Dr. Damian Betebenner**, ERME Department
Title: On NCLB, Equal Educational Opportunity and Closing Achievement Gaps
Abstract: NCLB requirements for the disaggregation of assessment results have renewed attention on achievement gaps and strategies for their reduction. Beneath the unquestioned mandate to close achievement gaps and equalize achievement across subgroups is a presumed moral imperative worthy of clarification. Though rarely articulated, the most obvious ethical basis on which to argue for the elimination of achievement gaps is equal educational opportunity (EEO). What to infer about EEO on the basis of achievement gaps, however, is by no means straightforward. Our purpose in this paper is twofold: (1) To ground the discussion of achievement gaps and their amelioration within an explicit EEO framework; and (2) to put forward a morally compelling and quantifiable criterion by which to judge whether achievement based EEO exists.