

**DENA A. PASTOR**

Department of Graduate Psychology  
 MSC 6806 Anthony-Seeger Hall  
 Harrisonburg, VA 22807  
 Phone: (540) 568-1670  
 pastorda@jmu.edu

**Education**

<b>2001</b>	<b>Ph.D.</b>	<b>Educational Psychology</b> The University of Texas, Austin, Texas Specialization: Quantitative Methods
<b>1995</b>	<b>B.A.</b>	<b>Psychology</b> The University of Texas, Austin, Texas

**Professional Experience**

*May 2002 - present* *Harrisonburg, VA*  
Associate Professor/Associate Assessment Specialist - Department of Graduate Psychology/Center for Assessment and Research Studies at James Madison University

Responsibilities include working on a variety of projects related to the assessment of learning and developmental outcomes of students. Specifically, responsibilities include guiding the design of tests and rating scales; processing, analyzing and reporting student assessment data; teaching courses in measurement, assessment, or statistics; mentoring graduate students; and conducting administrative duties. Promoted from assistant professor/assistant assessment specialist to current position in July 2008.

*May 2002* *San Antonio, TX*  
Psychometric Consultant – Harcourt Educational Measurement

Created a SAS program that: 1) uses logistic discriminant function analysis to identify differential item functioning (DIF) in dichotomous and polytomous test items, and 2) graphs functions for items flagged as having DIF.

*October 2001 – April 2002* *San Antonio, TX*  
Psychometrician – Harcourt Educational Measurement

Involved with multiple research projects regarding the development of the Stanford 10 and the evaluation of the California STAR. Such projects included: comparing several classical and IRT equating methods, both vertical and horizontal, for use with the Stanford 10; assessing the dimensionality of tests consisting of dichotomous items; investigating the relationship of theta with grade level when examining “clusters” of items on a test; evaluating how scoring items polytomously vs. dichotomously affects the equating relationship between forms; identifying outliers in vertical and horizontal equating data; investigating alternative methods for the development of norms; participating in online standard setting procedures using the modified Angoff procedure.

*August 1999 – June 2001* *Austin, TX*  
Research Associate - Pro-Ed: An International Publisher, Research Division

Involved with all aspects of test development for a small test publishing company specializing in psychological and educational products. Responsibilities included: entering and cleaning test data; performing classical and IRT based item analyses; managing data sets; performing reliability and validity analyses; creating normative tables; performing DIF analyses and factor analyses; equating test forms; writing the syntax for analyses in SAS, SPSS, Bilog and Bilog-MG; converting programs written in Fortran or Basic to SAS; evaluating alternative psychometric methods for test development; writing or editing various sections of the test manuals; hiring and training research assistants.

*June 1999 – July 1999* *Princeton, NJ*  
Summer Intern – Educational Testing Service, Research Division

Aided in the preparation of a document outlining the advantages and disadvantages of administering the National Assessment of Educational Progress (NAEP) in an adaptive format. As well, aided in the

development of a computer program to calculate the theoretical lower bound of test overlap rates in various CAT environments.

## Teaching Experience

Associate Professor	May 2002 - present
<i>Department of Graduate Psychology, James Madison University</i>	
Hierarchical Linear Models	Spring '07 - '08
Measurement Theory	Spring '03 - '07, '09
Research Design & Inferential Statistics	Fall '02 - '03; Spring '06
Computer-Assisted Data Management & Analysis	Fall '04 - '08; Spring '05
Independent Study: Hierarchical Linear Modeling	Spring '04 - '06, '09; Summer '09
Independent Study: Program Evaluation	Fall '02
Independent Study: Factor Analysis with Dichotomous Variables	Spring '06
Independent Study in Introductory Statistics	Spring '06
Doctoral Seminar in Categorical Data Analysis	Summer '04
Doctoral Seminar in Research Methods	Fall '05, Fall '08
Adjunct Faculty	October 2003 – June 2004
<i>NOVA Southeastern University; National EdD Program for Educational Leaders</i>	
Introduction to Statistics and Measurement; Statistical Methods	
Teaching Assistant	Spring 1998 – Fall 1999
<i>Departments of Psychology &amp; Educational Psychology, University of Texas</i>	
Psychometric Theory and Methods, Measurement and Evaluation, Introduction to Statistics, Statistics and Research Design, Experimental Psychology	

## Paper Publications

- Wise, S. L., Pastor, D. A., & Kong, X. J. (2009). Understanding correlates of rapid-guessing behavior in low stakes testing: Implications for test development and measurement practice. *Applied Measurement in Education, 22*, 185-205.
- Serpell, Z. N., Evans, S. W., Schultz, B. K., & Pastor, D. A. (2008). Incremental benefits of school-based treatment for adolescents with ADHD. *The ADHD Report, 16*, 1-7.
- Grove, A. B., Evans, S. W., Pastor, D. A., & Mack, S. D. (2008). A meta-analytic examination of follow-up studies of programs designed to prevent the primary symptoms of oppositional defiant and conduct disorders. *Aggression and Violent Behavior, 13*, 169-184.
- Pastor, D. A., Kaliski, P. K., & Weiss, B. A. (2007). Examining college students' gains in general education. *Research & Practice in Assessment, 1*, 1-20.
- Evans, S. W., Serpell, Z. N., Schultz, B., & Pastor, D. A. (2007). Cumulative benefits of secondary school-based treatment of students with ADHD. *School Psychology Review, 36*, 256-273.
- Taylor, M. A., & Pastor, D. A. (2007). A confirmatory factor analysis of the Student Adaptation to College Questionnaire. *Educational & Psychological Measurement, 67*, 1002-1018.
- Pastor, D. A., Barron, K. E., Miller, B. J., & Davis, S. L. (2007). A latent profile analysis of college students' achievement goal orientation profiles. *Contemporary Educational Psychology, 32*, 8-47.
- Pastor, D. A., & Beretvas, S. N. (2006). Longitudinal Rasch modeling in the context of psychotherapy outcomes assessment. *Applied Psychological Measurement, 30*, 100-120.
- Halonon, J., Harris, C. M., Pastor, D. A., Abrahamson, C. E., & Huffman, C. J. (2005). Assessing general education outcomes in introductory psychology. In D. S. Dunn and S. Chew (Eds.), *Best Practices in Teaching Introduction to Psychology*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

- Pastor, D. A. (2003). The use of multilevel IRT modeling in applied research: An illustration. *Applied Measurement in Education, 16*, 223-243.
- Beretvas, S. N. & Pastor, D. A. (2003). Using mixed-effects models in reliability generalization studies. *Educational & Psychological Measurement, 63*, 75-95.
- Davis, L. L., Pastor, D. A., Dodd, B. G., Chiang, C., & Fitzpatrick, S. J. (2003). An examination of exposure control and content balancing restrictions on item selection in CATs using the partial credit model. *Journal of Applied Measurement, 4*, 24-42.
- Pastor, D. A., Dodd, B. G., & Chang, H. H. (2002). A comparison of item selection techniques and exposure control mechanisms in CATs using the generalized partial credit model. *Applied Psychological Measurement, 26*, 147-163.
- Reid, R., Epstein, M. H., Pastor, D. A., & Ryser, G. R. (2000). Strength-based assessment differences across students with LD and EBD. *Remedial and Special Education, 21*(6), 346-355.

### In Press

- Pastor, D. A. (in press). Cluster analysis. In G. R. Hancock & R. O. Mueller (Eds.), *Quantitative methods in the social and behavioral sciences: A guide for researchers and reviewers*. New York: Taylor & Francis.

### Presentations

- Cotten, M. R., & Pastor, D. A. (2008, October). *A latent profile analysis of college students' health and wellness behaviors*. Poster presented at the annual meeting of the Northeastern Educational Research Association, Rocky Hill, CT.
- Barry, C. L., & Pastor, D. A. (2008, October). *Does the Relationship Between AP and SAT Scores Differ Across High Schools? A Hierarchical Approach*. Paper presented at the annual meeting of the Northeastern Educational Research Association, Rocky Hill, CT.
- Jones, A. T., & Pastor, D. A. (2008, October). *Change in PSAT and SAT scores over time*. Paper presented at the annual meeting of the Northeastern Educational Research Association, Rocky Hill, CT.
- Pastor, D. A., Barron, K. E., Miller, B. J., & Davis, S. L. (2007, October). *A latent profile analysis of college students' achievement goal orientation*. Paper presented at the annual meeting of the Northeastern Educational Research Association, Rocky Hill, CT.
- Lau, A. R., & Pastor, D. A. (2007, October). *Factor mixture models: Mixture modeling as a tool for studying measurement invariance*. Paper presented at the annual meeting of the Northeastern Educational Research Association, Rocky Hill, CT.
- Lau, A. R. & Pastor, D. A. (2007, October). *A hierarchical linear model of variability in test motivation across students and within students across tests*. Paper presented at the annual meeting of the Northeastern Educational Research Association, Rocky Hill, CT.
- Swerdzewski, P. J., & Pastor, D. A. (2007, October). *Students' nesting within high schools as a predictor of college GPA, worry, and confidence*. Poster presented at the annual meeting of the Northeastern Educational Research Association, Rocky Hill, CT.
- Pastor, D. A., Lau, A. R., & Setzer, J. C. (2007, August). *Modeling item response profiles using factor models, latent class models, and latent variable hybrids*. Poster presented at the annual meeting of the American Psychological Association, San Francisco.

- Wise, S. L., Kong, X. J., & Pastor, D. A. (2007, April). *Understanding correlates of rapid-guessing behavior in low-stakes testing: Implications for test development and measurement practice*. Paper presented at the annual meeting of the National Council of Measurement in Education, Chicago.
- Pastor, D. A., Kaliski, P. K., & Weiss, B. A. (2006, April). *A meta-analytic review of college students' gains in general education*. Paper presented at the annual meeting of the Association of American Educational Research Association, San Francisco.
- Pastor, D. A. (2005, June). *Assessment of health and wellness in general education*. Paper presented at the Pacific Planning, Assessment and Institutional Research Conference, Honolulu.
- Taylor, M. A., & Pastor, D. A. (2005, May). *Adjustment to college as a predictor of first-year retention*. Paper presented at the annual meeting of the Association of Institutional Research, San Diego.
- Taylor, M. A., & Pastor, D. A. (2005, May). *A confirmatory factor analysis of the Student Adaptation to College Questionnaire*. Paper presented at the annual meeting of the Association of Institutional Research, San Diego.
- Pastor, D. A., Barron, K. E., Miller, B. J., & Davis, S. L. (2004, April). *College students' achievement goal orientation profiles*. Paper presented at the annual meeting of the American Educational Research Association, San Diego.
- Davis, S. L., Pastor, D. A., & Barron, K. E. (2004, April). *Examining goal orientation similarities and differences among college majors: An HLM analysis*. Paper presented at the annual meeting of the American Educational Research Association, San Diego.
- Halonen, J., Pastor, D. A., Harris, C. Abrahamson, C., & Huffman, C. (2003, September). *Assessing general education outcomes in introductory psychology*. Presented at the annual meeting of Taking Off: Best Practices in Teaching Introductory Psychology, Atlanta.
- Pastor, D. A., & Beretvas, S. N. (2003, April). *An illustration of longitudinal Rasch modeling in the context of psychotherapy outcomes assessment*. Paper presented at the annual meeting of the National Council of Measurement in Education, Chicago.
- Fairchild, A., Pastor, D. A., & Brennan, K. A. (2003, April). *Exploratory factor analysis of an adult attachment measure*. Poster presented at the annual meeting of the Virginia Psychological Association, Tyson's Corner, VA.
- Richarde, R. G., & Pastor, D. A. (2003, April). *Investigation of differential item functioning for African-American and Anglo-American college students in the modified Achievement Goal Questionnaire*. Poster presented at the annual meeting of the National Council of Measurement in Education, Chicago.
- Pastor, D. A. (2002, April). *Application of multilevel IRT modeling to the study of self-esteem in adolescents*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.
- Pastor, D. A. (2002, February). *An introduction to reliability generalization*. Paper presented at the annual meeting of Southwest Educational Research Association, Austin.
- Pastor, D. A., Dodd, B. G., & Chang, H. H. (2000, April). *A comparison of item selection techniques and exposure control mechanisms in CATs using the generalized partial credit model*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Davis, L. L., Pastor, D. A., Chiang, C., Dodd, B. G., Fitzpatrick, S. J. (2000, April). *An examination of exposure control and content balancing restrictions on item selection in CATs using the partial credit model*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Pastor, D. A., Chiang, C., Dodd, B. G., & Yockey R. D. (1999, April). *Performance of the Simpson-Hetter exposure control algorithm with a polytomous item bank*. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

### **Keynote Addresses, Short-Courses & Professional Workshops**

Workshop – “Analyzing and Interpreting Assessment Information,” Assessment Institute, James Madison University, Harrisonburg, VA, July, 2008.

Workshop – “Validity: Factor Analysis,” Assessment Institute, James Madison University, Harrisonburg, VA, July, 2008.

Sproles, K., Hazard, G., Murphy, K., Amato, H., Wise, S., Sundre, D., & Pastor, D. (2005, October). *General Education Assessment at James Madison University*. Panel at the Association for General and Liberal Studies and Association for Integrative Studies Joint National Conference, Fairfax, VA.

Workshop – “Analyzing and Interpreting Assessment Information: How to Conduct Appropriate Analyses,” Assessment Institute, James Madison University, Harrisonburg, VA, June, 2005.

Workshop – “Item Writing and Analysis Workshop,” University of Southern Nevada, College of Pharmacy, Henderson, NV, May, 2005.

Invited Keynote Speaker – “Core Assessment: Challenges Facing New Programs and Attributes of a Successful Program at James Madison University,” Texas Association for Institutional Research, Austin, TX, September, 2004.

### **Grants**

Serpell, Z., Pastor, D., & Talley, C. (2007). *Developing and evaluating the impact of an integrated curriculum and multicultural competence training on part-time faculty and their students*. Funding Agency: General Education program at James Madison University; Funding Amount: \$4,165

### **Professional Memberships**

National Council on Measurement in Education  
American Educational Research Association  
American Psychological Association

### **Service**

Editorial Board Member, Educational and Psychological Measurement  
Guest Reviewer, Structural Equation Modeling (Teacher’s Corner)  
Guest Reviewer, Journal of Educational Measurement  
Guest Reviewer, Journal of Applied Measurement  
Guest Reviewer, Journal of School Psychology  
Proposal Reviewer, American Educational Research Association  
Proposal Reviewer, American Psychological Association