

## Alumni Return to CARS: Share Insights with Current Students

In early March, three local alumni from the Assessment & Measurement PhD program provided a CARS Talk where they discussed their jobs in higher education, how they got them, and what knowledge and skills they use most. The main topic of the discussion was higher education assessment. Alumni described differences between assessment at JMU and smaller community colleges, both from the perspective of an assessment practitioner and a faculty member. The role college-level and program-level accreditation plays in the work of assessment practitioner was also described. Alumni participating in the CARS Talk included Hilary Campbell ('07) who is currently an Assistant Professor in Psychology at Blue Ridge Community College; Amy Thelk ('06), Director of Assessment of Education Programs at JMU; and Chris Orem ('12), who is the Director of Institutional Effectiveness at Dabney S. Lancaster Community College.

## Presentations & Publications

**Senior Assessment Specialist and faculty member Christine DeMars** had an article published in the journal *Educational and Psychological Measurement* titled "Partially-compensatory multi-dimensional IRT models: Two alternate model forms." In this article, Christine examined models for responses to test items that require multiple abilities. The most simple model is main effects: each skill contributes additively to the probability of correct response. However, this may be too simple to be realistic. Christine applied a model with an interaction term, and another where the probability is a product of the probabilities of correctly applying the two skills. The interaction model is easier to estimate, and for many times it fit the responses well even when the responses were simulated to fit the more complicated product model. Thus, it may be useful for applied testing practice.

**Many faculty and students in CARS traveled to Washington D.C.** in April for the annual meetings of the American Educational Research Association & the National Council on Measurement in Education. Presentations from this conference can be found on the last page of this report.

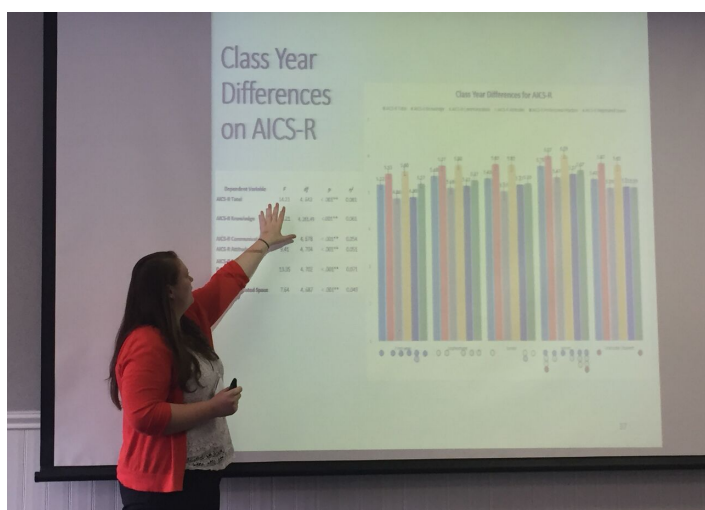


# Annual Symposium in Research and Practice

The Department of Graduate Psychology hosts an annual symposium each spring where students can share their developing areas of expertise. Second year students in the Psychological Sciences program, as well as first year students in the Assessment & Measurement program participated in this symposium on April 22nd.



Presenters from the doctoral program included Heather Harris, Liz Pyburn, Nick Curtis, and Madison Holzman. Masters students presenting included Thai Ong, Carolyn Miesen, and Liz Smith. A comprehensive list of presentations from this event can be found on the final page of this report under the presentations heading. Included here are some photos from the event. Excellent work to all our participants this year!





## Award Season!

### A&M Director Debbi Bandalos wins Annual Service Award

Dr. Debbi Bandalos was the recipient of the Annual Service Award for the Structural Equation Modeling Special Interest Group (SIG) within the American Educational Research Association (AERA). The award recognizes leaders within the SIG who have provided exceptional service over the years and have made significant contributions to the discipline of structural equation modeling. Debbi served as the secretary/treasurer of the SEM SIG from 1993 to 1998 and as the Program Chair from 1999-2001. She has been on the board since 1993, and served as Associate Editor of *Structural Equation Modeling: A Multidisciplinary Journal* since 2012. It is an exceptional honor that the SIG has recognized Debbi's many years of service to this group.

### Doctoral student Liz Pyburn wins Outstanding Thesis Award

Liz Pyburn was this year's winner of the Outstanding Thesis Award from the Graduate School at JMU for her Master's Thesis titled "Persons Can Speak Louder Than Variables: Person-Centered Analysis and the Prediction of Student Success." Liz is a 2015 graduate of the Psychological Sciences (Quant Concentration) MA program here at JMU, and is just finishing up her first year in the Assessment & Measurement PhD program. Congratulations to Liz on her exceptional work. *(Pictured right: Dr. Jie Chen, Dean of the Graduate School, presents Liz with award.)*



### Graduate Psychology Departmental Awards

Several students in the Assessment & Measurement PhD program, as well as the Psychological Sciences MA (Quant Concentration) program have received awards for their outstanding work in the 2015-16 academic year. The students and their awards are listed below. These awards will be presented at the Graduate Psychology Spring Celebration on May 5<sup>th</sup>, 2016.

	<b>Assessment &amp; Measurement</b>	<b>Psychological Sciences</b>
Outstanding Teaching :	Liz Pyburn	Casey Williamson & Ren Bethke
Outstanding Service :	Kelly Foelber & Jessica Jacovidis	Aaron Myers & Alyssa Welch
Outstanding Scholarship:		Thai Ong
Overall Outstanding:	Kristen Smith	Liz Smith

## Psychological Sciences: Quantitative Concentration M.A. Student News

The three studies below represent examples of the assessment and measurement research being conducted by the Quantitative Psychology Concentration students in the Psychological Sciences MA program and members of their research teams. These presentations summarize the research presented in the manuscripts they completed as part of their research apprenticeship projects during their first year of graduate school. These presentations were held on Friday, April 15<sup>th</sup>.

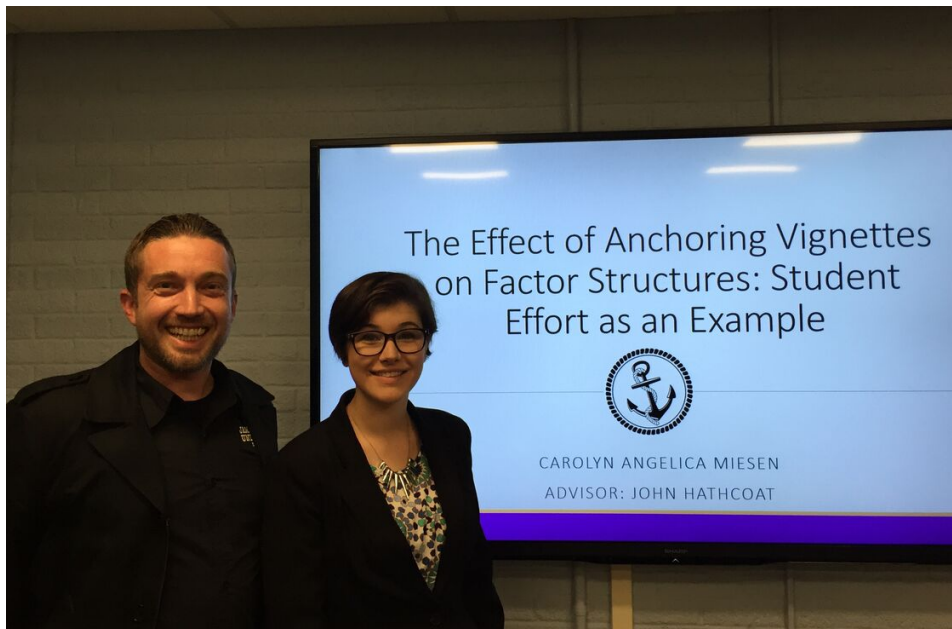
**Aaron Myers, Sara Finney & Catherine Mathers** *A moderated mediation model of test importance, examinee effort, and test performance across test instruction conditions*

**Catherine Mathers, Sara Finney, & Aaron Myers** *“While taking this test, I felt my heart beating fast.” The unintended effects of manipulating test instructions to increase examinee motivation in low-stakes testing*

**Derek Sauder & Christine DeMars** *Challenging conditions for MML and MH-RM estimation of multidimensional IRT models*

Congratulations to Aaron, Catie, and Derek on their excellent presentations of their first-year research projects.





Carolyn Miesen successfully defended her thesis on Friday, April 1<sup>st</sup>. Her thesis is titled *"The Effect of Anchoring Vignettes on Factor Structures: Student Effort as an Example."* Carolyn's thesis committee was made up of Dr. John Hathcoat (chair), Dr. Debbi Bandalos, and Dr. Sara Finney. Carolyn's work proposes the use of measurement invariance as a strategy for evaluating whether anchoring vignettes identify, and

then correct for, differential interpretations of response categories when using self-report (e.g. Likert-type scales). Advisor and committee chair John Hathcoat states about Carolyn's thesis: *"I think a strength of her thesis derives from creating an argument for specifying what aspects of a factor structure should be non-variant if the anchoring vignettes are functioning as expected."* Congratulations to Carolyn on this accomplishment and academic milestone!

Thai Ong defended his thesis on April 14<sup>th</sup>, under the leadership of Dr. Monica Erbacher. The title of Thai's thesis is "Examining Latent Change Classes: An Application of Factor Mixture Modeling to Change scores." Thai's committee is comprised of Dr. Monica Erbacher (chair), Dr. Debbi Bandalos, and Dr. Jeanne Horst. Thai will graduate in May with a M.A. in Psychological Sciences, from the Quantitative Psychology concentration. Thai has decided to continue his education here at JMU and will be starting the Assessment & Measurement Ph.D. program in fall. We are excited to have Thai with us for another three years. Congratulations, Thai!



## CARS Assessment News and Service – Spring 2016

- The Madison Collaborative, JMU's Ethical Reasoning in Action plan is one of the six semi-finalists for a national Phi Kappa Phi award. A portfolio has been submitted to contend for the award, and we'd like to take a moment to thank all of the people who have contributed to this project and have helped make the ethical reasoning effort at JMU as successful as it has been – Special thanks to faculty member Allison Ames, CARS graduate assistants Kristen Smith and Liz Pyburn, CARS staff Liz Hawk Sanchez, and A&M Alumni Megan Rodgers Good and Bo Bashkov. There are a number of others who have worked tediously on this project, and for them we are also thankful. Even if we are not the final recipients of this award, we are very proud of the work being done with the Madison Collaborative, and it is simply an honor to even be considered.
- MA Student Catherine (Catie) Mathers has been elected the President of the Graduate Student Association (GSA) for the 2016-17 academic year. The GSA is an organization independent of The Graduate School that is run by and for the graduate students. The goal of the organization is to foster community, promote professionalism and scholarship, and provide necessary resources for the graduate community. Catie speaks on behalf of the entire executive council when she says that they are looking forward to serving their peers this upcoming year. Congrats, Catie!
- Dr. Allison Ames has been invited to join the *Malaysian Journal of Learning & Instruction* (MJLI) as a consulting editor. Chief Editor Dr. Rosna Awang-Hashim, of University Utara Malaysia, and Dr. Ames have been working on a research and scholarly partnership, with the MJLI serving a key role in this partnership. Nurliyana Bujhari, a doctoral candidate at the University of North Carolina-Greensboro has helped foster this relationship, as both Dr. Ames and Dr. Rosna are committee members on Nurliyana's dissertation.

## Ph.D. Program News

### GENERAL EDUCATION CLUSTER UPDATES:

Cluster One, with the assistance of David Yang (CARS Security Analyst) and Jack Garmer (Assessment and Testing Center, Lab Manager) approved cell phone policies, talking policies, and other civility policies to their computer-based tests: The MREST and the SCOM final.

Cluster One is also in preparation for the rating session of the Critical Thinking Assessment Test that was administered on Spring Assessment Day in February. The rating session will take place in May.

**Madison Holzman, 1<sup>st</sup> year Doctoral student, along with Sarah Sunde (Director of Orientation) traveled to Montreal, Quebec over JMU's Spring Break to present at the College Student Educators International Conference. Madison and Sarah presented their paper "Enhancing student learning: A multi-year implementation fidelity assessment of Orientation." The presentation was sponsored by the American College Personnel Association's (ACPA) Commission for Assessment and Evaluation and showcased how Orientation has used implementation fidelity to explain their outcomes data and to intentionally improve programming over the past six years. Nearly 30 people were in attendance and attendees asked many questions about how to incorporate implementation fidelity at their own institutions. 2<sup>nd</sup> year MA student, Carolyn Miesen, and faculty member Sara Finney were also authors on the paper.**

## Presentations

- Ames, A.J. (2016, April). *Bayesian Model Criticism: Prior Sensitivity of the Posterior Predictive Checks Method*. Poster presented at the American Educational Research Association annual conference, Washington, D.C.
- Ames, A.J. (2016, April). *Food Insecurity and Academic Achievement*. Roundtable presentation at the American Educational Research Association annual conference, Washington, D.C.
- Bashkov, B.M. & DeMars, C.E. (2016, April). *Examining performance of the MH-RM algorithm with the 3PL multilevel MIRT model*. Paper presented at the annual meeting of the National Council on Measurement in Education, Washington, D.C.
- Curtis, N.A. (2016, April). *The Development of the Engineering Student Identity Scale (ESIS)*. Presented at the Department of Graduate Psychology's annual Spring Symposium. James Madison University, Harrisonburg, VA.
- DeMars, C.E. & Jacovidis, J.N. (2016, April). *Multilevel IRT: When is local independence violated?* Electronic board presented at the annual meeting of the National Council on Measurement in Education, Washington, D.C.
- Finney, S.J., Foley, B., Gorin, J., Koro-Ljungberg, M., Stapleton, L., & Tesar, M. (2016, April). *Oh, the places you will go! Finding your way in measurement and research methodology*. Invited panel at the American Educational Research Association annual conference, Washington, D.C.
- Harris, H.D., & Horst, S.J. (2016, April). *Propensity score matching in higher education assessment*. Paper presented at the American Educational Research Association annual meeting, Washington, D.C.
- Harris, H.D. (2016, April). *Propensity Score Matching Covariate Selection: The Impact of Including Covariates Unrelated to Program Outcomes*. Presented at the Department of Graduate Psychology's annual Spring Symposium. James Madison University, Harrisonburg, VA.
- Holzman, M., Sunde, S., Miesen, C., & Finney, S.J. (2016, March). *Enhancing student learning: A multi-year implementation fidelity assessment of orientation*. Sponsored presentation delivered at the College Student Educators International Conference, Montreal, CA.
- Holzman, M. (2016, April). *A Mixed-Methods Approach to Evaluating Differential Item Functioning: A Comparison of International and US Native Students on the Madison Research Essential Skills Test (MREST)*. Presented at the Department of Graduate Psychology's annual Spring Symposium. James Madison University, Harrisonburg, VA.
- Miesen, C.A. (2016, April). *Examining the Effect of Anchoring Vignettes on Factor Structure: Student Effort as an Example*. Presented at the Department of Graduate Psychology's annual Spring Symposium. James Madison University, Harrisonburg, VA.
- Ong, T.Q. (2016, April). *Examining Latent Classes with Different Patterns of Change in Sense of Identity: An Application of Mixture Modeling to Factor Analysis of Change Scores*. Presented at the Department of Graduate Psychology's annual Spring Symposium. James Madison University, Harrisonburg, VA.
- Pyburn, E.M., & Horst, S.J. (2016, April). *Persons can speak louder than variables: Person-centered approaches to student learning assessment*. Poster presented at the American Educational Research Association annual conference, Washington, D.C.

Pyburn, E.M. (2016, April). *Change Your Attitude: Attitudinal Item characteristics that Impact Participant Responses*. Presented at the Department of Graduate Psychology's annual Spring Symposium. James Madison University, Harrisonburg, VA.

Sauder, D. & DeMars, C.E. (2016, April). *Challenging conditions for MML and MH-RM estimation of multidimensional IRT models*. Electronic poster presented at the annual meeting of the National Council on Measurement in Education. Washington, D.C.

Smith, E. (2016, April). *The Alliant Intercultural Competency Scale: An Examination of Psychometric Properties and Validity Evidence*. Presented at the Department of Graduate Psychology's annual Spring Symposium. James Madison University, Harrisonburg, VA.

## **Publications**

DeMars, C.E. (2016). Partially-compensatory multi-dimensional IRT models: Two alternate model forms. *Educational and Psychological Measurement, 76*, 231-257.

Ghant, W.A., Horst, S.J., & Whetstone, D.H. (2016). Portrait of a Federal Work Study Assessment. *Journal of College Student Development, 57*, 210-212.

Harris, H.D., & Horst, S.J. (2016). A brief guide to decisions at each step of the propensity score matching process. *Practical Assessment in Research and Evaluation, 21*, 1-10.

Jacovidis, J., Clarke, K., Hazard, G., & Horst, S.J. (2016). Not my bunnies and not my hat. *AAHLE Intersection, 8-11*.