

# Erin M. Buchanan

Professor of Cognitive Analytics

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## Education

Ph.D., Experimental Cognitive Psychology, Texas Tech University	2008
Dissertation: <i>What's the difference: A study on semantic and associative priming and blocking.</i>	
Committee: Drs. William S. Maki (chair), Patricia R. Delucia, Ruth Maki, Roman Taraban	
M.A., Experimental Psychology, Texas Tech University	2006
Thesis: <i>Feature binding: Not quite so pre-attentive</i>	
Committee: Drs. M. Kathryn Bleckley (chair), William S. Maki	
B.S., Psychology, Texas A&M University	2004

## Employment

Harrisburg University of Science and Technology, Analytics	Full Time
Professor of Cognitive Analytics	2019-Current
DataCamp Instructor	Part-Time
Structural Equation Modeling in R <a href="#">Link</a>	2018-Current
Financial Modeling in Spreadsheets <a href="#">Link</a>	2019-Current
Missouri State University, Department of Psychology	Full Time
Associate Professor of Quantitative Psychology	2014-2018
Assistant Professor of Quantitative Psychology	2010-2014
University of Mississippi, Department of Psychology	Full Time
Instructional Assistant Professor of Psychology	2008-2010
Texas Tech University, Department of Psychology	Part Time
Graduate Part-Time Instructor	2005-2008
Graduate Teaching Assistant	2004-2005
Texas A&M University, Student Learning Center	Part Time
Supplemental Instruction Leader for Sociology and Psychology	2002-2004

## Honors and Awards

NACADA Academic Advising Excellence Faculty Advisor Award	2016
Nominated for the Missouri State Master Online Recognition Award	2016
Curtis P. Lawrence Award for Excellence in Advising Recipient, Missouri State University	2016
Missouri State University Honors College Curtis P. Lawrence Teaching Award Recipient	2015
Missouri State University Honors College Research Award Recipient	2014
Nominated for the Missouri State University Foundation Award in Research	2014; 2015
Nominated for the Curtis P. Lawrence Award for Excellence in Advising, Missouri State University	2012
Nominated for Frist Teaching Award, University of Mississippi	2009
Teaching Academy's Departmental Excellence in Teaching Award	2007
First place in the 5th Annual Graduate Student Poster Competition	2006
Department of Psychology Travel Grant	2005-2007
Graduate School Travel Grant	2005-2007
Department of Psychology Competitive Scholarship	2004-2006

## Research

### Links

[Google Scholar](#)

[OrcID](#)

[General CV, Research](#)

[Computational Linguistics](#)

[Statistics Tools](#)

[YouTube Channel](#)

[GitHub](#)

[Open Science Framework](#)

[Twitter](#)

## Interests

### *Psycholinguistics and memory*

Semantic memory, associative memory, priming of memory types, normed databases, linguistic variables, memory maps, judgments of memory, language statistics, working memory, individual differences.

### *Statistics*

Alternatives to null hypothesis testing, effect sizes and confidence intervals, multigroup confirmatory factor analysis, item response theory, Bayesian inference statistics, hierarchical linear modeling, exploratory factor analysis, statistical reporting

## Experience

The DOOM Lab	2019-Current
Harrisburg University of Science and Technology, Analytics	
Principal Investigator	
The DOOM Lab	2010-2018
Missouri State University, Department of Psychology	
Principal Investigator	
Positive Psychology - Clinical Disaster Research Center	2009-Current
University of Mississippi, Department of Psychology	
Researcher	
Geospatial Sciences Collaborative Team	2009-2011
University of Mississippi, Depts of Psychology, Computer Science, Health Exercise Science, and Geospatial Sciences	
Researcher	
Psycholinguistics Lab	2008-2010
University of Mississippi, Department of Psychology	
Principal Investigator	
Memory and Judgments Laboratory for Dr. William Maki	2006-2008
Texas Tech University, Department of Psychology	
Graduate Researcher	
Memory and Aging Laboratory Dr. M. Kathryn Bleckley	2004-2006
Texas Tech University, Department of Psychology	

Graduate Coordinator and Researcher  
Cognition and Perception Laboratory Dr. Takashi Yamauchi  
Texas A&M University, Department of Psychology  
Undergraduate Research Assistant

2004

## Skill Set

### *Programming knowledge*

HTML, CSS, Perl, C++, PHP, MSSQL, MYSQL, Python, R

### *Software*

SPSS (including syntax), Excel (macros/functions), AMOS, LISREL, RStudio, Shiny, MPlus, Inquisit, Qualtrics, Observation Oriented Modeling (OOM), JASP/Jamovi

## Publications

### Statistical Packages & Tools

*Note:* \* indicate undergraduate authors, + graduate authors, \$ both undergraduate and graduate  
+Buchanan, E.M., Gillenwaters, A., Scofield, J.E., & Valentine, K.D. (2019). MOTE: Measure of the Effect): Package to assist in effect size calculations and their confidence intervals. *R package version 1.0.1*. [Link](#)

Buchanan, E.M. (2018). MeMoBootR: A package for mediation, moderation, and bootstrapped indirect effects. *R package version 0.0.0.6001*. [Link](#)

See [Shiny Page](#) for a complete list of Shiny apps and their help guides.

## Journal Articles

### *Psycholinguistics, Cognitive Science*

\*Forbes, F.-J., & Buchanan, E.M. (2019). "Textisms": The comfort of the recipient. *Psychology of Popular Media Culture*, 4, 358–364. doi: 10.1037/ppm0000194 [Link](#)

Buchanan, E.M., De Deyne, S., & Montefinese, M. (2019). A practical primer on processing semantic property norm data. *Cognitive Processing*, X, XX–XX. doi: 10.1007/s10339-019-00939-6 [Link](#)

+Buchanan, E.M., Valentine, K.D., & Maxwell, N.P. (2019). English Semantic feature production norms: An Extended database of 4,436 concepts. *Behavior Research Methods*, 51, 1849–1863. doi: 10.3758/s13428-019-01243-z [Link](#)

- +Scofield, J.E., Kostic, B., & Buchanan, E.M. (2019). How the presence of others affects desirability judgments in heterosexual and homosexual participants. *Archives of Sexual Behavior*, X, XX–XX. doi: 10.1007/s10508-019-01516-w [Link](#)
- +Maxwell, N.P. & Buchanan, E.M. (2019). Investigating the interaction of direct and indirect relation on memory judgments and retrieval. *Cognitive Processing*, X, XX–XX. doi: 10.1007/s10339-019-00935-w [Link](#)
- +Buchanan, E.M., Valentine, K.D., & Maxwell, N.P. (2019). LAB: Linguistic Annotated Bibliography – a searchable portal for normed database information. *Behavior Research Methods*, 51, 1878–1888. doi: 10.3758/s13428-018-1130-8 [Link](#)
- +Knoph, R.E., & Buchanan, E.M. (2019). Language learning and metacognition: An intervention to improve second language classrooms. *Journal of Scientific Psychology*, X, XX–XX. [Link](#)
- \*Marshall, C.Z., Buchanan, E.M., & Fallone, M.D. (2019). Love, language, and linear algebra: Linguistic modeling of personality and mate preference. *Modern Psychological Studies*, X, XX–XX. [Link](#)
- +Buchanan, E.M. & Padfield, W.E. (2019). Using word frequencies to analyze political language and moral focus. *SAGE Research Methods Datasets Part 2*, X, X. doi: 10.4135/9781526491398 [Link](#)
- +Scofield, J.E., Buchanan, E.M., & Kostic, B. (2018). A meta-analysis of the survival-processing advantage in memory. *Psychonomic Bulletin & Review*, 25, 997–1012. doi: 10.3758/s13423-017-1346-0 [Link](#)
- \$Duncan, J., Buchanan, E.M., Marshall, C.Z., & Oberdieck, K. (2018). But words will never hurt me. *Journal of Psychology and Behavioral Sciences*, 26, 72–81. [Link](#)
- \*Forbes, F.-J., & Buchanan, E.M. (2018). Getting “Clued” in: The usage and significance of context clues. *LOGOS: A Journal of Undergraduate Research*, 11, 114–128. [Link](#)
- \$Klein, D., Cunningham, A., & Buchanan, E.M. (2018). How metacognitive awareness relates to overconfidence in interval judgments. *International Journal of Undergraduate Research and Creative Activities*, 10, 1–10. doi: 10.7710/2168-0620.1109 [Link](#)
- \*Pavlicic, J., Culp, M., Harvey, S., Cathey, C., & Buchanan E.M. (2018). Using undergraduate learning assistants to aid in course redesign. *Modern Psychological Studies*, 23, 1–18. [Link](#)
- \*Marshall, C.Z. & Buchanan, E.M. (2016). The effect of personal distance on the perception of LGBTQ+ hate speech. *LOGOS: A Journal of Undergraduate Research*, 9, 30–43. [Link](#)
- \$Johnson, C.C., Buchanan, E.M., & Jordan, K.N. (2014). Blog topic and word frequency: What differentiates between high and low powered blogs?. *Psychology of Popular Media Culture*, 3, 154–163. doi: 10.1037/ppm0000036 [Link](#)
- +Maxwell, M.T., Carney, R.N., Buchanan, E.M., & Deal, W.P. (2014). The face-name mnemonic

strategy: Learning face-name pairs using abstract and concrete keywords. *The Researcher*, 26, 14–17. [Link](#)

+Teasley, M.L. & Buchanan, E.M. (2013). Are Missouri State students satisfied with academic advising?. *LOGOS: A Journal of Undergraduate Research*, 6, 81–90. [Link](#)

+Buchanan, E.M., Holmes, J. L., Teasley, M. L., & Hutchison, K. (2013). English semantic word-pair norms and a searchable Web portal for experimental stimulus creation. *Behavior Research Methods*, 45, 746–757. doi: 10.3758/s13428-012-0284-z [Link](#)

+Valentine, K.D., & Buchanan, E.M. (2013). JAM-boree: An application of observation oriented modelling to judgements of associative memory. *Journal of Cognitive Psychology*, 25, 400–422. doi: 10.1080/20445911.2013.775120 [Link](#)

+Hutchison, K.A., Balota, D.A., Neely, J.H., Cortese, M.J., Cohen-Shikora, E.R., Tse, C., Yap, M.J., Bengson, J.J., Niemeyer, D., & Buchanan, E.M. (2013). The semantic priming project. *Behavior Research Methods*, 45, 1099–1114. doi: 10.3758/s13428-012-0304-z [Link](#)

\*Foster, L.E., & Buchanan, E.M. (2012). Judgments of memory: Do the number and presentation of cues available help?. *Journal of Psychological Inquiry*, 17, 17–25. doi: Elizabeth A. Dahl, Ph.D. Award for Excellence in Undergraduate Research Recipient [Link](#)

Buchanan, E.M. (2010). Access into memory: Differences in judgments and priming for semantic and associative memory. *Journal of Scientific Psychology*, March, 1–8. [Link](#)

Buchanan, E.M. (2008). Differential effects of association and semantics on priming and memory judgments. *Texas Tech University, Dissertation*, X, X. [Link](#)

Maki, W., & Buchanan, E.M. (2008). Latent structure in measures of associative, semantic, and thematic knowledge. *Psychonomic Bulletin & Review*, 15, 598–603. doi: 10.3758/pbr.15.3.598 [Link](#)

### *Applied Statistics*

\$Pavlastic, J.M., Buchanan, E.M., Maxwell, N.P., Hopke, T.G., & Schulenberg, S.E. (2019). A meta-analysis of expressive writing on positive psychology variables and traumatic stress. *Review of General Psychology*, 23, 230–250. doi: 10.1177/1089268019831645 [Link](#)

Chin, E.G., Bernecker, S., Buchanan, E.M., Cunningham, S., Schumacher, J.A., & Coffey, S.F. (2019). A novel dissemination effort for prolonged exposure: Practice & dissemination curriculum. *Psychological Trauma: Theory, Research Practice, and Policy*, 11, 314–318. doi: 10.1037/tra0000362 [Link](#)

+Valentine, K.D., Buchanan, E.M., Scofield, J.E., & Beauchamp, M.T. (2019). Beyond p-values: Utilizing multiple estimates to evaluate evidence. *Behaviormetrika*, 46, 121–144. doi: 10.1007/s41237-019-00078-4 [Link](#)

+Chin, E.G., Buchanan, E.M., Ebesutani, C., Young, J. (2019). Depression, Anxiety, and Stress: How should clinicians interpret the Total and Subscale Scores of the 21-Item Depression, Anxiety, and Stress Scales?. *Psychological Reports*, 122, 1550–1575. doi: 10.1177/0033294118783508 [Link](#)

+Smith, J.M., Whisenhunt, B.L., Buchanan, E.M., & Hudson, D.L. (2019). Evaluating the effectiveness of ecological momentary assessment and intervention targeting body checking behaviors. *Eating Disorders*, 27, 521–537. doi: 10.1080/10640266.2018.1560850 [Link](#)

+Herr, D. & Buchanan, E.M. (2019). Generativity and other buffers of death awareness in first responders with PTSD. *Anxiety, Stress, & Coping*, X, XX–XX. doi: 10.1080/10615806.2019.1695522 [Link](#)

+Weber, M.C., Pavlacic, J.M., Gawlik, E.A., Schulenberg, S.E., & Buchanan, E.M. (2019). Modeling resilience, meaning in life, posttraumatic growth, and disaster preparedness with two samples of tornado survivors. *Traumatology*, X, X. doi: 10.1037/trm0000210 [Link](#)

+Nadhan, K.S., Chung, C.L., Buchanan, E.M., Shaver, C., Shipman, S., Allawh, R.M., Hoffman, M.L., Lim, G., Abdelmalek, M., & Cusack, C.A. (2019). Risk factors for Keratinocyte Carcinoma skin cancer In Nonwhite individuals: A retrospective analysis. *Journal of the American Academy of Dermatology*, 81, 373–378. doi: 10.1016/j.jaad.2019.01.038 [Link](#)

+Buchanan, E.M., Valentine, K.D., & Frizell, M.L. (2019). Supplemental Instruction: Understanding Academic Assistance in Underrepresented Groups. *The Journal of Experimental Education*, 87, 288–298. doi: 10.1080/00220973.2017.1421517 [Link](#)

+Finkelstein-Fox, L., Pavlacic, J., Buchanan, E.M., Schulenberg, S.E., & Park, C.L. (2019). Valued living in daily experience: Relations with mindfulness, meaning, psychological flexibility, and stressors. *Cognitive Therapy and Research*, X, XX–XX. doi: 10.1007/s10608-019-10062-7 [Link](#)

+Wang, A., Fine, A.M., Buchanan, E.M., Janko, M., Nigrovi, L.E., & Lantos, P.M. (2019). A Bayesian spatiotemporal analysis of pediatric group a streptococcal infections. *Open Forum Infectious Diseases*, X, XX–XX. [Link](#)

\$Buchanan, E. M., Foreman, R. E., Johnson, B., Pavlacic, J. M., Swadley, R. L., & Schulenberg, S. E. (2018). Does the delivery matter? Examining randomization at the item level. *Behaviormetrika*, 45, 295–316. doi: 10.1007/s41237-018-0055-y [Link](#)

Lakens, D., Adolphi, F.G., Alberbs, C.J., ... Zwaan, R. (2018). Justify your alpha. *Nature Human Behaviour*, 2, 168–171. doi: 10.1038/s41562-018-0311-x [Link](#)

+Buchanan, E.M., & Scofield, J.E. (2018). Methods to detect low quality data and its implication for psychological research. *Behavior Research Methods*, 50, 2586–2596. doi: 10.3758/s13428-018-1035-6 [Link](#)

Schivinski, B., Brzozowska-Woś, M., Buchanan, E. M., Griffiths, M. D., & Pontes, H. M. (2018). Psychometric assessment of the Internet Gaming Disorder diagnostic criteria: An Item Response Theory study. *Addictive Behaviors Reports*, 8, 176–184. doi: 10.1016/j.abrep.2018.06.004

[Link](#)

+Johnson, L.R., Chin, E.G., Kajumba, M., Buchanan, E.M., Kizito, S., Bangirana, P. (2017). Do concepts of depression predict treatment pathways? A closer look at explanatory models among clinical and nonclinical samples in Uganda. *Journal of Clinical Psychology*, 73, 893–909. doi: 10.1002/jclp.22378 [Link](#)

Moyer, K.H., McEvoy, J.P., Mabe, P.A., Buchanan, E.M., Venkatesan, A., & Buckley, P.F. (2017). Prioritizing harm. *Journal of Personality Assessment*, 99, 78–82. doi: 10.1080/00223891.2016.1180625 [Link](#)

+Schulenberg, S.E., Smith, C.V., Drescher, C.F., & Buchanan, E.M. (2016). Assessment of meaning in adolescents receiving clinical services in Mississippi following the Deepwater Horizon oil spill: An application of the Purpose in Life Test-Short Form (PIL-SF). *Journal Of Clinical Psychology*, 72, 1279–1286. doi: 10.1002/jclp.22240 [Link](#)

+Stefano, E.C., Hudson, D.L., Whisenhunt, B.L., Buchanan, E.M., & Latner, J.D. (2016). Examination of body checking, body image dissatisfaction, and negative affect using ecological momentary assessment. *Eating Behaviors*, 22, 51–54. doi: 10.1016/j.eatbeh.2016.03.026 [Link](#)

+Aiena, B.J., Buchanan, E.M., Smith, C.V., & Schulenberg, S.E. (2016). Meaning, resilience, and traumatic stress after the Deepwater Horizon oil spill: A study of Mississippi coastal residents seeking mental health services. *Journal of Clinical Psychology*, 72, 1264–1278. doi: 10.1002/jclp.22232 [Link](#)

Peter, C., Schulenberg, S.E., Buchanan, E.M., Prodinger, B., & Geyh, S. (2016). Rasch analysis of measurement instruments capturing psychological personal factors in persons with spinal cord injury. *Journal of Rehabilitation Medicine*, 48, 175–188. doi: 10.2340/16501977-2028 [Link](#)

+Teasley, M.L. & Buchanan, E.M. (2016). When music goes up in flames: The impact of advising on music major burnout. *NACADA Journal*, 36, 43–53. doi: 10.12930/nacada-15-002 [Link](#)

+Aiena, B. J., Buchanan, E.M., Smith, C.V., & Schulenberg, S.E. (2016). Perceived Effect of the Gulf Oil Spill Measure. *PsycTESTS*, NA, NA. doi: 10.1037/t59265-000 [Link](#)

Maack, D.J., Buchanan, E.M., & Young, J. (2015). Development and psychometric investigation of an inventory to assess fight, flight, and freeze tendencies: The Fight, Flight, Freeze Questionnaire. *Cognitive Behaviour Therapy*, 44, 117–127. doi: 10.1080/16506073.2014.972443 [Link](#)

+Aiena, B.J., Baczwaski, B.J, Schulenberg, S.E., & Buchanan, E.M. (2015). Measuring resilience With the RS-14: A tale of two samples. *Journal of Personality Assessment*, 97, 291–300. doi: 10.1080/00223891.2014.951445 [Link](#)

+Buchanan, E.M., Valentine, K.D., & Schulenberg, S.E. (2014). Exploratory and confirmatory factor analysis: developing the purpose in life test-short form. *SAGE*, X, X. doi: 10.4135/978144627305013517794 [Link](#)

+Walters, B.A., Drescher, C.F., Baczwaski, B.J., Aiena, B.J., Darden, M.C., Johnson, L.R., Buchanan, E.M., & Schulenberg, S.E. (2014). Getting active in the Gulf: Environmental attitudes



and action following two Mississippi coastal disasters. *Social Indicators Research*, 118, 919–936. doi: 10.1007/s11205-013-0428-2 [Link](#)

+Schulenberg, S.E., Baczwaski, B.J., & Buchanan, E.M. (2014). Measuring search for meaning: A factor-analytic evaluation of the Seeking of Noetic Goals Test (SONG). *Journal of Happiness Studies*, 15, 693–715. doi: 10.1007/s10902-013-9446-7 [Link](#)

+Trent, L., Buchanan, E., Ebesutani, C., Heiden, L.J., Damon, J., & Hight, T., Young, J. (2013). A measurement invariance examination of the Revised Child Anxiety and Depression Scale in a southern sample: Differential item functioning between African American and Caucasian youth. *Assessment*, 20, 175–187. doi: 10.1177/1073191112450907 [Link](#)

+Teasley, M.L. & Buchanan, E.M. (2013). Capturing the student perspective: A new instrument for measuring advising satisfaction. *NACADA Journal*, 33, 4–15. doi: 10.12930/nacada-12-132 [Link](#)

+Schnitzer, L.W., Schulenberg, S.E., & Buchanan, E.M. (2013). Differential associations among alcohol use, depression and perceived life meaning in male and female college students. *Journal of Substance Use*, 18, 311–319. doi: 10.3109/14659891.2012.661026 [Link](#)

+Rost, A.D., Wilson, K., Buchanan, E. M., Hildebrandt, M.J., & Mutch, D. (2012). Improving psychological adjustment among late-stage ovarian cancer patients: Examining the role of avoidance in treatment. *Cognitive and Behavioral Practice*, 19, 508–517. doi: 10.1016/j.cbpra.2012.01.003 [Link](#)

+Smitherman, T., McDermott, M., & Buchanan, E.M. (2011). Negative impact of episodic migraine on a university population: quality of life, functional impairment, and comorbid psychiatric symptoms. *Headache: The Journal of Head and Face Pain*, 51, 581–589. doi: 10.1111/j.1526-4610.2011.01857.x [Link](#)

Schulenberg, S.E., Strack, K.M., Buchanan, E.M. (2011). The meaning in life questionnaire: psychometric properties with individuals with serious mental illness in an inpatient setting. *Journal of Clinical Psychology*, 67, 1210–1219. doi: 10.1002/jclp.20841 [Link](#)

+Schulenberg, S.E., Schnitzer, L.W. & Buchanan, E.M. (2011). The purpose in life test-short form: development and psychometric support. *Journal of Happiness Studies*, 12, 861–876. doi: 10.1007/s10902-010-9231-9 [Link](#)

## Preprints

*Psycholinguistics, Cognitive Science*

\$Forscher, P.S., et al. (2019). A multi-site examination of stereotype threat in Black college students across varying operationalizations. [Link](#)

\$Hall, B., et al. (2019). Accelerated CREP - RRR: Turri, Buckwalter, & Blouw (2015). [Link](#)

+Buchanan, E.M., Gillenwaters, A., Padfield, W.E., Van Nuland, A., & Wikowsky, A. (2019). Word space creator: A visual tool for semantic space visualization. [Link](#)

+Wikowsky, A., & Buchanan, E.M. (2019). Expertise within working memory and fluid intelligence. [Link](#)

+Buchanan, E.M., & Valentine, K.D. (2018). An extension of the QWERTY effect: Not just the right hand, expertise and typeability predict valence ratings of words. [Link](#)

Montefinese, M., Buchanan, E.M., & Vinson D. (2018). How well do similarity measures predict priming in abstract and concrete concepts?. [Link](#)

+Maxwell, N.P. & Buchanan, E.M. (2018). Modeling memory: Exploring the relationship between word overlap and single word norms when predicting relatedness judgments and retrieval. [Link](#)

+Jordan, K.N., Buchanan, E.M., & Padfield, W.E. (2018). The Language of War: A Replication and Extension of Abe (2012) and Matsumoto et al. (2015). [Link](#)

+Buchanan, E.M., Scofield, J.E., Nunley, N. (2018). The N400's 3 As: Association, automaticity, attenuation (and some semantics too). [Link](#)

+Sumner, C., Scofield, J.E., Buchanan, E.M., Evans, M.R., & Shearing, M. (2018). The role of personality, authoritarianism and cognition in the United Kingdom's 2016 referendum on European Union membership. [Link](#)

\*Marshall, C.Z. & Buchanan, E.M. (2017). Latent semantic analysis applied to authorship questions in textual analysis. [Link](#)

### *Applied Statistics*

\$Buchanan, E.M., Crain, S., Cunningham, A., Johnson, H., Stash, H., Papadatou-Pastou, M., Isager, P.M., Carlsson, R., & Aczel, B. (2019). Getting started creating data dictionaries: How to create a shareable dataset. [Link](#)

+Huber, B., Jones, R.G., Capps, S.C., & Buchanan, E.M. (2019). Memory Complaint Inventory Profiles in Poor Effort, Pseudodementia, and Dementia Populations. [Link](#)

+Liberto, A.K., Pimperl, J.W., Buchanan, E.M., Deal, W.P., & Schulenberg, S.E. (2019). Development of the Impact of Event Scale-8 (IES-8): A study in serious mental illness. [Link](#)

+Buchanan, E.M., Manley, H., Sly, J., Cady, R., Wikowsky, A., & Cunningham, A.L. (2019). Development of the Functional Assessment of Migraine Scale using a patient guided approach. [Link](#)

+Buchanan, E.M., Valentine, K.D., & Pavlacic, J. (2019). Hypothesize once, plan twice. [Link](#)

\$Valentine, K.D., Buchanan, E.M., Cunningham, A., Hopke, T.G., Wikowsky A., & Wilson H. (2018). Have researchers increased reporting of outliers in response to the reproducibility crisis?. [Link](#)

+Delmonico, J.R., & Buchanan, E.M. (2018). Personality factors, ideology, and sensitivity to change. [Link](#)

+Buchanan, E.M., & Scofield, J.E. (2017). Bulletproof bias? Considering the type of data in common proportion of variance effect sizes. [Link](#)

+Buchanan, E. M., Johnson, B. N., Miller, A., Stockburger, D. W., & Beauchamp, M. (2017). Perceived grading and student evaluation of instruction. [Link](#)

## Grants

### *Psycholinguistics, Cognitive Science*

Principal Investigator. Measuring the Lexicon: Computational Approaches to Quantifying Similarity Among Cognitive Representations. Psychonomic Society Estes Grants. (2019, submitted). \$19,000.00

Co-Principal Investigator. To see or not to see: Perceptual learning in organic chemistry. National Science Foundation (2015, submitted). \$980,730.00

Principal Investigator. Using Language to Understand Congressional Voting Behaviors. National Science Foundation (2014, submitted). \$176,098.

Principal Investigator. Studying Semantic Memory of Intelligent Design Systems. IBM's Watson Group. (2014). Applied for access to database.

Principal Investigator. Counting tweets: How social media word frequency enhances our understanding of cognition. Twitter Grant Competition. (2014, submitted). Applied for access to database.

Principal Investigator. Memory as a Complex System: Creating Online, Dynamic Semantic Memory Models. James S. McDonnell Foundation Scholar Award in Complex Systems. (2014, submitted). \$450,000.

Principal Investigator. Online course development grant. Online course development stipend. Missouri State University Provost's Office. (1/1/14-5/15/14). \$2,400. Principal Investigator. Graduate Recruitment Grant. Missouri State University Graduate College. (1/1/14-12/15/14). \$1,800.

Principal Investigator. EXP: Supplemental Instruction: Bridging Technology and Student Academic Success Programs. National Science Foundation (2012, submitted). \$526,809.

Principal Investigator. We Are All Biased. Fixing Judgments of Associative Memory. Missouri State University Graduate College's Summer Research Stipend. (6/1/2012-8-15-2012). \$6000.

Principal Investigator. Investigating Effective Supplemental Instruction to Improve Student Success. Missouri State University's Dean's Summer Research Stipend. (5/31/2011-9/1/2011). \$6000.

Principal Investigator. Cheating at Scrabble: An Online Database of Word Information. Missouri State University's Faculty Research Grant. (1/2011-1/2012). \$7095.

Principal Investigator: Understanding Language Learning in the Brain: Using EEG Brain Computer Interface to Improve Development. Honda Initiative (2009, submitted).

## **Applied Statistics**

Principal Investigator. Creating Enhanced Shared Decision Making through a Migraine Tracking Application. Presidential Research Grant at Harrisburg University. (2019, awarded). \$19180.

Principal Investigator. Validation of the Functional Assessment of Migraine Scale (FAMS). National Headache Foundation (2019, submitted). \$54,000.00.

Principal Investigator. Development of a Headache Meaningful Response Measure Using a Patient Guided Approach. National Headache Foundation (04/01/2018-04/01/2019). \$99,592.

Statistician. Utilization of adaptive patient-centered electronic behavioral feedback intervention for the prevention of transformation from episodic to chronic migraine. Pragmatic Clinical Studies funded by the PCORI Foundation. (2014, submitted). \$2,000,000.

Statistician. Meaning and Purpose in Life as it Relates to Suicidality in Adult Inpatients with Serious Mental Illness. American Foundation for Suicide Prevention. (2013, submitted). \$30,000.

Statistician. Predictors of Subjective Well-being Among Survivors of the Armed Conflict in Colombia: a Positive Psychology View. Psychology Beyond Borders. (2013, submitted). \$8,156.38.

Principal Investigator. Visualizing Statistics: Developing Interactive Tools to Improve Statistics and Research Learning Outcomes. Faculty Teaching and Learning Center Curriculum Grant. (1/1/14-8/15/14). \$4,500.

Principal Investigator. Using Item Response Theory to Explore Scale Psychometrics. Missouri State University's Faculty Research Grant. (1/1/14-12/31/14). \$2,040.

Principal Investigator. A solution to the file drawer problem: Alternative analyses to null hypothesis testing. National Science Foundation (2013, submitted). Up to \$1,000,000.

Principal Investigator. Luella Stuck Cline resources award for textbook purchase. Missouri State University Library Funding. (2012, submitted). \$366.

Co-Principal Investigator: II-NEW: An Infrastructure for Distributed Research on Neurophysiology and Brain-Computer Interface. National Science Foundation (2010, resubmitted).

## Presentations

### *Psycholinguistics, Cognitive Science*

+Cunningham, A., Chate, N. & Buchanan, E.M. (2019, November). *Automating the Linguistic Annotated Bibliography (LAB)*. Spoken presentation for the Annual Meeting of the Society for Computers in Psychology, Montreal, Canada. [Link](#)

+Buchanan, E.M., De Deyne, S., & Montefinese, M. (2019, November). *A practical primer on processing semantic property norms*. Spoken Presentation for the Annual Meeting of the Psychonomic Society, Montreal, Canada. [Link](#)

+Padfield, W.E. & Buchanan, E.M. (2019, April). *Moral foundations of U.S. political news organizations*. Poster presentation for the Annual Convention of the Midwestern Psychological Association, Chicago, IL. [Link](#)

\$Hart, B., Walker, E., Nale, A., Heim, D., Gaspard, M., Cook, T., Yadon, C., Buchanan, E.M., Hayden, S., & Young-Jones, A. (2019, April). *Negating the nerves: Reducing test anxiety with expressive writing*. Poster presentation for the Annual Convention of the Southwestern Psychological Association, Albuquerque, New Mexico. [Link](#)

+Buchanan, E. M., Maxwell, N. P., Valentine, K.D., ... (2018, November). *Using the Semantic Priming Project to understand variability in priming*. Poster presentation for the Annual Meeting of the Psychonomic Society, New Orleans, LA. [Link](#)

+Buchanan, E.M., Gillenwaters, A., Padfield, W.E., Van Nuland, A., & Wikowsky, A. (2018, November). *Word space creator: A visual tool for semantic space visualization*. Spoken presentation for the Annual Meeting of the Society for Computers in Psychology, New Orleans, LA. [Link](#)

\*Marshall, C.Z. & Buchanan, E.M. (2018, April). *Latent semantic analysis of personality and mate preference*. Poster presentation for the Annual Convention of the Midwestern Psychological Association, Chicago, IL. [Link](#)

+Maxwell, N. P. & Buchanan, E. M. (2018, April). *Single and double word-pair norms: Predictive ability of recall and judgments*. Poster presentation for the Annual Convention of the Midwestern Psychological Association, Chicago, IL. [Link](#)

+Knoph, R.E., Buchanan, E.M., Kostic, B.N., Hellman, A.B., & Carney, R.N. (2017, November). *Language learning and metacognition: An intervention to improve second language classrooms*. Poster presentation for the Annual Meeting of the Psychonomic Society, Vancouver, Canada. [Link](#)

+Maxwell, N. P., Kostic, B., & Buchanan, E.M. (2017, November). *The interaction of semantic, thematic, and associative overlap strength in predicting recall*. Poster presentation for the Annual Meeting of the Psychonomic Society, Vancouver, Canada. [Link](#)

\*Marshall, C.Z., & Buchanan, E.M. (2017, April). *Does God speak in Threes? Applying Latent Semantic Analysis to Isaiah*. Spoken presentation for the Annual Convention of the Southwestern Psychological Association, San Antonio, TX . [Link](#)

+Scofield, J.E., Kostic, B., & Buchanan, E.M. (2016, November). *A meta-analysis of the survival processing advantage*. Poster presentation for the Annual Meeting of the Psychonomic Society, Boston, MA. [Link](#)

+Knoph, R.E., Buchanan, E.M., & Kostic, B. (2016, November). *Linguistic learning and metacognition: Do we learn differently, and do we know it?*. Poster presentation for the Annual Meeting of the Psychonomic Society, Boston, MA. [Link](#)

\$Buchanan, E.M., Miller, K.D., Klug, E.R., Knoph, R.E., Kusel, E., Marshall, C.Z., Maxwell, N., & Swadley, R. (2016, November). *Metacognitive awareness and judgments of learning in statistics' courses*. Poster presentation for the Annual Meeting of the Psychonomic Society, Boston, MA. [Link](#)

\$Knoph, R.E., Kusel, E.G., & Buchanan, E.M. (2016, May). *Learning a foreign language: Can features influence learning?*. Spoken presentation for the Annual Meeting of the Midwestern Psychological Association, Chicago, IL . [Link](#)

\*Forbes, F.M. & Buchanan, E.M. (2016, April). *"Textisms": The comfort of the recipient*. Student Research Competition presentation for Annual Meeting of the Southwestern Psychological Association, Dallas, TX. [Link](#)

\$Knoph, R.E., Kusel, E.G., & Buchanan, E.M. (2016, April). *Matching native language to second language learning: Languages are not equally difficult*. Poster presentation for the Annual Meeting of the Southwestern Psychological Association, Dallas, TX . [Link](#)

\*Phillips, S.C. & Buchanan, E.M. (2016, April). *Past and present: Verb tenses across blog themes*. Poster presentation for the Annual Meeting of the Southwestern Psychological Association, Dallas, TX . [Link](#)

+Delmonico, J., Hunter, S., & Buchanan, E.M. (2016, April). *Phonetic symbolism in an associative definition task*. Poster presentation for the Annual Meeting of the Southwestern Psychological Association, Dallas, TX . [Link](#)

+Miller, K.E., Klug, E., & Buchanan, E.M. (2016, April). *Understanding JAM: How judgment of association is influenced by working memory and fluid intelligence*. Poster presentation for the Annual Meeting of the Southwestern Psychological Association, Dallas, TX . [Link](#)

+Valentine, K.D., Buchanan, E.M., & Miller, K. (2015, November). *Individual expertise in underlying memory judgments*. Poster presentation for the Annual Meeting of the Society for Judgment and Decision Making, Chicago, IL. [Link](#)

+Jordan, K.N. & Buchanan, E.M. (2015, April). *Exploring moral language: A validation of the Moral Foundation Dictionary*. Spoken presentation for the Southwestern Psychological Association Convention, Wichita, KS. [Link](#)

+Delmonico, J. & Buchanan, E. M. (2015, April). *Phonetic preferences for cvc trigrams*. Poster presentation for the Southwestern Psychological Association Convention, Wichita, KS. [Link](#)

+Jordan, K.N., Delmonico, J., & Buchanan, E.M. (2015, April). *The use of moral language in Congressional foreign policy discourse*. Poster presentation for the Southwestern Psychological Association Convention, Wichita, KS. [Link](#)

+Jordan, K.N., Buchanan, E.M., Delmonico, J., & Carney, R.N. (2014, November). *Political party differences in language use in discourse on context*. Poster presentation for the Annual Meeting of the Psychonomic Society, Long Beach, CA. doi: 10.1037/e524912015-269 [Link](#)

+Buchanan, E.M., Valentine, K.D., Teasley, M.L., Jordan, K.N., & Beauchamp, M.T. (2014, November). *LAB: Linguistic Annotated Bibliography - A searchable portal for normed database information*. Poster presentation for the Annual Meeting of the Psychonomic Society, Long Beach, CA. doi: 10.1037/e524912015-084 [Link](#)

+Jordan, K.N., & Buchanan, E.M. (2014, April). *Language of War*. Spoken presentation for the Southwestern Psychological Association meeting, San Antonio, Texas. [Link](#)

+Maxwell, M., Carney, R.N., & Buchanan, E.M. (2013, October). *The face-name mnemonic strategy: Learning face-name pairs using abstract and concrete keywords*. Poster presentation for the annual meeting of the Northern Rocky Mountain Educational Research Association, Jackson Hole, WY. [Link](#)

+Buchanan, E.M., Valentine, K.D., & Teasley, M.L. (2012, November). *QWERTY: We like easy words to type*. Poster presentation for the Annual Psychonomic Society Meeting in Minneapolis, MN. doi: 10.1037/e502412013-887 [Link](#)

Buchanan, E.M. (2012, January). *Family Feud: Language research is fun!*. Invited talk for the Psi Chi Club meeting, Springfield, MO. [Link](#)

Buchanan, E.M., & Maki, W.S. (2011, November). *Cognitive load eliminates debiasing of metacognitive judgments of association*. Spoken presentation at the annual meeting of the Psychonomic Society Seattle, WA. doi: 10.1037/e520602012-051 [Link](#)

+Buchanan, E.M., & Valentine, K.D. (2011, November). *JAM-boree: A meta-analysis of judgment of memory*. Poster presentation at the annual meeting of the Psychonomic Society, Seattle, WA. doi: 10.1037/e520602012-916 [Link](#)

Buchanan, E.M. (2011, November). *Psychology research and language use*. Invited talk for Central High School Psychology Club Springfield, MO. [Link](#)

Buchanan, E.M. (2011, April). *Updating your status: How Facebook talk informs us about current word use*. Invited talk for Honor's College at Missouri State University: Springfield, MO. [Link](#)

Maki, W.S., & Buchanan, E. M. (2010, November). *Association as choice: What metacognitive judgments tell us about the associative processor*. Symposium talk presented at the annual Psychonomic Society Meeting in St. Louis, MO. doi: 10.1037/e520592012-190 [Link](#)

Buchanan, E.M. (2010, November). *From bad to worse: Variations in judgments of associative*



*memory*. Poster presented at the annual Psychonomic Society Meeting in St Louis, MO. doi: 10.1037/e520592012-535 [Link](#)

Buchanan, E.M. (2009, September). *Modeling constraints and access into memory*. Invited talk for colloquia series at the University of Mississippi: Oxford, MS. [Link](#)

Buchanan, E.M. (2009, October). *Limitations of judgments of associative memory*. Presentation for colloquia series at the University of Mississippi: Oxford, MS. [Link](#)

Buchanan, E.M. (2009, November). *Access into memory: Does associative memory come first?*. Poster session presented at the Psychonomic Society Meeting, Boston, MA.. doi: 10.1037/e520562012-724 [Link](#)

Buchanan, E.M. (2009, March). *Can't block the rock n roll: Early associative access*. Presentation for colloquia series at the University of Mississippi: Oxford, MS. [Link](#)

Buchanan, E.M. (2008, January). *Memory, priming, and all that jazz*. Presentation for Cognitive Brown Bag series at Texas Tech University, Lubbock, TX. [Link](#)

Buchanan, E.M. (2008, April). *What's the difference: A study on semantic and associative priming and blocking*. Presentation for Cognitive Brown Bag series at Texas Tech University, Lubbock, TX. [Link](#)

Buchanan, E.M. (2007, October). *Can't block the rock n roll: Differences in judgments and priming for semantic and associative memory*. Presentation for Cognitive Brown Bag series at Texas Tech University, Lubbock, TX. [Link](#)

Buchanan, E., Maki, W. S. (2007, October). *Factor analytic structure of memory types*. Poster session presented at Annual Armadillo Conference, San Antonio, TX. [Link](#)

Buchanan, E., Maki, W. S., & Patton, M. (2007, November). *Associative judgments block semantic processing...*. Poster session presented at the Psychonomic Society Meeting, Long Beach, CA.. doi: 10.1037/e527342012-451 [Link](#)

Buchanan, E.M. (2007, March). *Attention switching: Does it make a jump?*. Presentation for Cognitive Brown Bag series at Texas Tech University, Lubbock, TX. [Link](#)

Buchanan, E.M. (2007, March). *Attention switching: The magic middle*. Poster session presented at Texas Tech University Graduate Student Conference, Lubbock, TX. [Link](#)

Buchanan, E.M. (2006, October). *Attention switching: What's in the middle?*. Poster session presented at Annual Armadillo Conference, Lubbock, TX. [Link](#)

Buchanan, E.M. (2006, October). *Where is it? Location tags are the key*. Presentation for Cognitive Brown Bag series at Texas Tech University, Lubbock, TX. [Link](#)

Buchanan, E.M. (2006, November). *Feature binding: How exactly do features move?*. Poster presented at the Psychonomic Society Meeting, Houston, TX. doi: 10.1037/e527352012-880 [Link](#)



Buchanan, E.M. (2006, May). *Feature binding: Not quite so pre-attentive*. Poster session presented at Association for Psychological Science Meeting, New York, NY. [Link](#)

Buchanan, E.M. (2006, March). *Feature binding: Early or late?*. Poster session presented at Texas Tech University All-University Conference, Lubbock, TX. [Link](#)

Buchanan, E.M. (2006, March). *Feature binding: Not quite so pre-attentive*. Poster session presented at Texas Tech University Graduate Student Conference, Lubbock, TX. [Link](#)

Buchanan, E.M. (2006, April). *Attention: What we can do with it*. Presentation for Cognitive Brown Bag series at Texas Tech University, Lubbock, TX. [Link](#)

Buchanan, E.M. (2005, April). *Attention and feature binding*. Presentation for Cognitive Brown Bag series at Texas Tech University, Lubbock, TX. [Link](#)

### *Applied Statistics*

Steltenpohl, C.N., Basnight-Brown, D.M., Chartier, C.R., Buchanan, E.M., Ellis, C., Bermann, K., & Levitan, C. (2019, November). *Using collaborative networks to address the WEIRD problem in science: The Psychological Science Accelerator*. Ignite poster session accepted to Midwest Eco at Lisle, IL.. [Link](#)

+Cunningham, A., Crain, S. E., Johnson, H. R., Stash, H., & Buchanan, E. M. (2019, November). *Data dictionaries: Shareable datasets for all*. Poster Presentation for the Annual Meeting of the Psychonomic Society, Montreal, Canada. [Link](#)

+Huber, B., Jones, R.G., Capps, S.C., & Buchanan, E.M. (2019, November). *Memory Complaint Inventory cutoff scores: Differentiating genuine clinical presentation from insufficient effort*. Poster presentation for the National Academy of Neuropsychology, San Diego, CA. doi: 10.1093/arclin/aczo34.55 [Link](#)

+Finkelstein-Fox, L., Pavlacic, J., Schulenberg, S.E., Buchanan, E.M., & Park, C.L. (2019, May). *Daily stressors and values adherence: Protective effects of coping and emotion regulation resources*. In C.L. Park, Chair, Integrating Perspectives on Stress Processes: The Overlapping and Unique Roles of Coping and Emotion Regulation. Symposium to be presented at the meeting of the Association for Psychological Science, Washington, D.C.. [Link](#)

+Hart, B., Young-Jones, A., Yadon, C.A., & Buchanan, E.M. (2019, May). *Support promotes student success: Validation of the Scale of Perceived Instructor Support (SPIS)*. Poster presentation for the Annual Meeting of the Association for Psychological Science, Washington, D.C.. [Link](#)

Buchanan, E.M. (2019, May). *Uncovering factors patients use to evaluate meaningful response to migraine treatment*. Data Analytics Summit V, Harrisburg, PA. [Link](#)

+Cunningham, A., Crain, S. E., Johnson, H. R., Stash, H., & Buchanan, E. M. (2019, March). *Getting started creating data dictionaries: Creating shareable datasets*. Poster session presented at the 39th annual Great Plains Students' Psychology Convention, Springfield, MO. [Link](#)

+Manley, H., Buchanan, E.M., Sly, J., Cady, R., Cunningham, A., & Wikowsky, A. (2019, July). *Development of a patient reported outcome measure evaluating meaningful response to migraine treatment*. Presentation for the American Headache Society's 61st Annual Scientific Meeting, Philadelphia, PA. [Link](#)

Buchanan, E.M., & Azevedo, F. (2019, July). *Workshop - Statistics are useless without suitable data: How to implement and assess for data quality*. Workshop for the Society for the Improvement of Psychological Science (SIPS) 2019 Meeting. [Link](#)

+Buchanan, E.M., Manley, H., Sly, J., Wikowsky, A., & Cady, R. (2019, February). *Uncovering factors patients use to evaluate meaningful response to migraine treatment*. Poster presentation for the 32nd Annual Practicing Physician's Approach to the Difficult Headache Patient, San Diego, CA. [Link](#)

+Wikowsky, A., Buchanan, E.M., Cady, R., Manley, H., Sly, J., & Cunningham, A. (2019, April). *Development of a patient defined migraine assessment*. Poster presentation for the Annual Convention of the Midwestern Psychological Association, Chicago, IL. [Link](#)

+Pavlicic, J. M., Buchanan, E. M., & Schulenberg, S. E. (2018, May). *A meta-analysis of expressive writing on posttraumatic stress*. Poster presentation for the Annual Convention of the Association for Applied Behavioral Analysis International, San Diego, CA. [Link](#)

+Young-Jones, A., Hayden, S., Yadon, C., & Buchanan, E.M. (2018, June). *Reducing test anxiety: Evaluating contemplative practices in education*. Presentation at the 9th European Conference on Positive Psychology 2018. [Link](#)

+Weber, M., Pavlicic, J.M., Schulenberg, S.E., & Buchanan, E.M. (2018, April). *Gender differences in resilience, meaning, and purpose using factor-analytic techniques and scale scores*. Poster presentation for the Resilience Con, Nashville, TN. [Link](#)

+Buchanan, E.M., Padfield, W.E., Wikowsky, A., Van Nuland, A., & Gillenwaters, A. (2018, April). *Measuring effects: An online app for effect size calculation for research and statistics classes*. Poster presentation for the Annual Convention of the Midwestern Psychological Association, Chicago, IL. [Link](#)

\$Buchanan, E.M., Valentine, K.D., Cunningham, A., Hopke, T.G., Wikowsky, A., & Wilson, H. (2018, April). *Outrageous observations: the redheaded stepchild of data analysis*. Poster presentation for the Annual Convention of the Midwestern Psychological Association, Chicago, IL. [Link](#)

+Pavlicic, J. M., Schulenberg, S. E., Buchanan, E. M., & Boullion, G. Q. (2018, April). *Predicting mindfulness behaviors from values progression using ecological momentary assessment*. Data Blitz talk submitted at the 5th annual University of Mississippi Psychology Research Day, Oxford, MS. [Link](#)

Buchanan, E.M. (2018, April). *Third wheels and interactions: Mediation and moderation analyses*. Invited Talk for the Annual Convention of the Midwestern Psychological Association,

Chicago, IL. [Link](#)

+Liberto, A.K., Pimperl, J.W., Buchanan, E.M., Deal, W.P., & Schulenberg, S.E. (2017, November). *Development of the Impact of Event Scale-8 (IES-8): A study in serious mental illness*. Poster presented at the 33rd annual meeting of the International Society for Traumatic Stress Studies, Chicago, IL. [Link](#)

Chin, E., Bernecker, S., Buchanan, E., Cunningham, S., Schumacher, J., & Coffey, S. (2017, November). *A novel dissemination effort for prolonged exposure: Practice & dissemination curriculum*. Poster will be presented at the 51st annual meeting for the Association for Behavioral and Cognitive Therapies, San Diego, CA. [Link](#)

+Buchanan, E.M., Scofield, J.E., & Marshall, C.Z. (2017, November). *Distributions and sampling variance for five effect size measures of variance overlap*. Poster presentation for the Annual Meeting of the Psychonomic Society, Vancouver, Canada . [Link](#)

+Smith, J., Whisenhunt, B., & Hudson, D. (2017, November). *Examination of a five-day ecological momentary intervention on body checking: An update*. Poster presentation for the 51st annual meeting of the Association for Behavioral and Cognitive Therapies, San Diego, CA. [Link](#)

+Scofield, J.E. & Buchanan, E.M. (2017, November). *Survey automation detection methods and its implications on psychological research*. Spoken presentation for the Annual Meeting of the Society for Computers in Psychology, Vancouver, Canada . [Link](#)

+Weber, M. C., Pavlacic, J. M., Schulenberg, S. E., & Buchanan, E. M. (2017, July). *Meaning, self-efficacy, and posttraumatic growth in university faculty and staff: A study of tornado impact and survivor resilience*. Poster presentation for 5th World Congress on Positive Psychology, The International Positive Psychology Association, Montreal, Québec, Canada. [Link](#)

+Weber, M. C., Pavlacic, J. M., Schulenberg, S. E., & Buchanan, E. M. (2017, July). *Meaning, self-efficacy, and posttraumatic growth in university students: A study of tornado impact and survivor resilience*. Poster presentation for 5th World Congress on Positive Psychology, The International Positive Psychology Association, Montreal, Québec, Canada. [Link](#)

+Oh, K.J., Esposito, A., Owen-Simon, N., Dachert, S., Kaplan, J., Kamenko, A. ... Eun, D. (2017, February). *Evaluation of video game skill for future training modalities in robotic-assisted surgery*. Poster presentation for the 12th Annual Academic Surgical Congress, Las Vegas, NV . [Link](#)

\*Pavlacic, J., & Buchanan, E.M. (2017, April). *A meta-analysis of expressive writing on life quality and posttraumatic growth*. Spoken presentation for the Annual Convention of the Southwestern Psychological Association, San Antonio, TX. [Link](#)

Nadhan K.S., Shipman S., Buchanan E.M., Malat G.E., & Chung C.L. (2017, April). *Cutaneous infection rats are not affected by Chronic HIV(+) or HCV(+) Infection in organ transplant recipients*. Poster presentation for the Society for Investigative Dermatology, Portland, OR. [Link](#)

Nadhan K.S., Usedom E., Shipman S., Doyle A., Malat G.E., Buchanan E.M., Chung C.L. (2017, April). *Nonmelanoma skin cancer rates are not affected by Chronic HIV(+) or HCV (+) Infection in organ transplant recipients*. Poster presentation for the American Transplant Congress, Chicago, IL.

[Link](#)

+Swadley, R., Buchanan, E.M., Deal, W.P., & Capps, S.C. (2017, April). *Returning to abusive relationships: Related and predictive factors*. Spoken presentation for the Annual Convention of the Southwestern Psychological Association, San Antonio, TX. [Link](#)

+Oh, K.J., Esposito, A., Owen-Simon, N., Dachert, S., Kaplan, J., Kamenko, A. ... Eun, D. (2016, September). *Evaluation of video game skill for future training modalities in robotic-assisted surgery*. Poster presentation for the 4th Annual Temple Translational Science Symposium, Philadelphia, PA. [Link](#)

+Shipman, S.S., Buchanan, E.M., & Reese, A.C. (2016, September). *Infectious complications following radical cystectomy: A structural equation model*. Poster presentation for the 4th Annual Temple Translational Science Symposium, Philadelphia, PA. [Link](#)

+Smith, J.M., Battles, J.A., Johnson, M.L., Whisenhunt, B.L., Buchanan, E.M., & Hudson, D.L. (2016, October). *Examination of an ecological momentary intervention on body checking and body dissatisfaction*. Poster presentation for the 50th annual meeting of the Association for Behavioral and Cognitive Therapies, New York, NY . [Link](#)

+Shipman, S.S., Buchanan, E.M., & Reese, A.C. (2016, November). *Infectious complications following radical cystectomy: A structural equation model*. Poster presentation for the American Medical Association Symposium, Orlando, FL. [Link](#)

+Johnson, L. R., Chin, E., Buchanan, E., Kajumba, M., Kizito, S., & Bangirana, P. (2015, November). *Do concepts of depression predict help-seeking in Uganda? A closer look at explanatory models among community and clinical participants*. Poster presented at the 49th annual meeting of the Association for Behavioral and Cognitive Therapies, Chicago, IL. [Link](#)

+Beauchamp, M.T., Buchanan, E.M., & Brown, C.E. (2015, November). *A psychometric evaluation of measures of male body dissatisfaction using item-response theory*. Poster presentation for the 49th Annual Convention of the Association for Behavioral and Cognitive Therapies, Chicago, IL . [Link](#)

+Buchanan, E.M., Delmonico, J., Graves, B.L., Hickman, H.O., Hutchison, T. W., Phillips, S.C., & Vu, M.Q. (2015, November). *English semantic relatedness norms: An extended database, feature coding, and online website*. Poster presentation for the Annual Meeting of the Psychonomic Society, Chicago, IL. [Link](#)

+Beauchamp, M.T., Buchanan, E.M., & Brown, C.E. (2015, April). *A psychometric evaluation of measures of male body dissatisfaction using item-response theory*. Poster presentation for the Annual Convention of the Southwestern Psychological Association, Wichita, KS. [Link](#)

Buchanan, E.M. (2014, November). *Shaking up statistics: A blended learning perspective for honors courses*. Poster presentation for the National Collegiate Honors Council Conference Denver, CO. [Link](#)

\$Foreman, R.E., Beauchamp, M.T., & Buchanan, E.M. (2014, November). *The delivery mat-*

*ters: Examining reactivity in question answering.* Poster presentation for the National Collegiate Honors Council Conference Denver, CO . [Link](#)

+Teasley, M., & Buchanan, E.M. (2014, February). *When music goes up in flames: The impact of advising on music major burnout.* Poster presentation for the NACADA Region 7 conference, St Louis, MO. [Link](#)

Buchanan, E.M. (2014, August). *Visualizing statistics: Developing curriculum tools.* Spoken presentation for the Faculty Center for Teaching and Learning Showcase Springfield, MO. [Link](#)

+Vu, M., Buchanan, E.M., Jordan, K., Teasley, M., & Valentine, K.D. (2014, April). *Shaking up statistics: A blended learning perspective.* Poster presentation for the Southwestern Psychological Association meeting, San Antonio, Texas. [Link](#)

+Buchanan, E.M., Valentine, K.D., & Derringer, C. (2013, November). *Effect sizes should be easy: A windows program to calculate effect sizes and their confidence intervals.* Poster presentation for the annual meeting of the Psychonomic Society, Toronto, Canada. doi: 10.1037/e633262013-896 [Link](#)

+Burt, T., Buchanan, E.M., Carr, M., Teasley, M., Yadon, C., & Young-Jones, A. (2013, May). *Academic advising assessment: Perceived support and scale development as outcomes.* Poster presentation for the Annual Meeting of the Association for Psychological Science, Washington DC . [Link](#)

+Teasley, M., Buchanan, E.M. (2012, October). *Capturing the student perspective: Advising at Missouri State University.* Poster presentation for NACADA Annual Conference, Nashville, TN. [Link](#)

Maack, D. J., Buchanan, E., & Young, J. (2012, November). *Separating fear from anxiety: Psychometric validation of the tFEAR.* In C M Luberto and A C McLeish (Chairs) Refining the CBT Compass: Advancements in the Assessment of Anxiety-Related Risk Factors Symposium presented at the 46th annual Association for Behavioral and Cognitive Therapies, National Harbor, MD. doi: 10.1037/t45433-000 [Link](#)

+Aiena, B. J., Baczwaski, B. J., Buchanan, E. M., & Schulenberg, S. E. (2012, August). *The Psychometric properties of the 14-Item Resilience Scale (RS-14).* Poster presentation at the 120th annual meeting of the American Psychological Association, Orlando, FL. doi: 10.1037/e666192012-001 [Link](#)

+Campbell, S. W., Buchanan, E. M., & Schulenberg, S. E. (2012, August). *The Life Purpose Questionnaire: A factor-analytic investigation.* Poster presentation at the 120th annual meeting of the American Psychological Association, Orlando, FL. doi: 10.1037/e640962012-001 [Link](#)

Buchanan, E.M. (2011, October). *The N400: how math informs us about language.* Invited talk for the KME Math Honor's Society at Missouri State University: Springfield, MO. [Link](#)

+Chin, E.G., Ebesutani, C., Buchanan, E.M., & Young, J. (2011, November). *A preliminary examination: Applicability of the 21-Item Depression, Anxiety, and Stress Scale as a general measure of psychological distress.* Poster presentation at the ABCT Annual Convention, Toronto, Canada. [Link](#)



+Schulenberg, S.E., Buchanan, E.M., & Baczwaski, B. (2011, August). *Psychometric properties of the Seeking of Noetic Goals (SONG) test*. Poster presentation at the annual conferences of the American Psychological Association, Washington DC. doi: 10.1037/e697012011-001 [Link](#)

+Trent, L., Buchanan, E., & Young, J. (2010, November). *Development and initial psychometric examination of the Measure of Disseminability*. Poster presentation at the annual meeting of the Association for Behavioral and Cognitive Therapies, San Francisco, CA (Dissemination and Implementation Special Interest Group. [Link](#)

+Trent, L., Buchanan, E., & Young, J. (2010, November). *The Measure of Disseminability: Confirmatory factor analysis and psychometric replication*. Poster presentation at the annual meeting of the Association for Behavioral and Cognitive Therapies, San Francisco, CA (Dissemination and Implementation Special Interest Group. [Link](#)

+Schnetzler, L., Schulenberg, S., & Buchanan, E.M. (2010, August). *Psychometric properties of the Purpose-in-Life Test–Short Form*. Poster presented at the annual conferences of the American Psychological Association, San Diego, CA. doi: 10.1037/e620922010-001 [Link](#)

## Students

### Graduate Students

School, Year	Name	Thesis
MSU, 2018-2020	Arielle Cunningham	TBD
MSU, 2017-2019	Addie Wikowsky	Working memory, expertise, and fluid intelligence
MSU, 2017-2019	William Padfield	Moral Foundations and political rhetoric
MSU, 2016-2018	David Herr	Generativity and Trauma in first responders
MSU, 2016-2018	Nick Maxwell	Investigating the interaction between associative, semantic, and thematic database norms for memory judgments and recall
MSU, 2015-2017	Katherine Miller	The Mediating Effects of Cortisol on Memory and Judgments of Learning
MSU, 2015-2017	Rebecca Knoph	Language Learning and Metacognition: An Interventions to Improve Language Classrooms
MSU, 2014-2016	Jahnavi Delmonico	Politics, Personality, and Sensitivity to Change
MSU, 2013-2015	Marshall Beauchamp	IRT Analyses of Body Dissatisfaction in Men
MSU, 2013-2015	Kayla Jordan	Linguistic Markers of Writing about War
MSU, 2012-2014	Marilee Teasley	When Music Goes Up in Flames: The Impact of Academic Advising on the Perceived Burnout of Music Majors

School, Year	Name	Thesis
MSU, 2011-2013	Kathrene Valentine	Alternatives: A Comparison of Parametric, Nonparametric, and Observation Oriented Modeling techniques

*Note.* I have supervised many graduate and undergraduate theses, presentations, and assistants. More information about each of their presentations and outcomes can be found on my website under students.

## Teaching

### Interests

#### *Undergraduate*

Statistics, Cognition, Research Methods/Experimental Design, Memory, Psycholinguistics, Analytics

#### *Graduate:*

Experimental Methods, Basic Statistics (ANOVA, Regression), Advanced Statistics (Multivariate, Structural Equation Modeling), Non-parametric Statistics, Cognition, Attention, Memory, Language

## Courses Taught

#### *Undergraduate*

Cognitive Psychology, General Psychology, Lab in Cognitive Psychology, Statistics for the Social Sciences, Advanced Statistics, Research Methods, Psycholinguistics, Freshman/Senior Honor's Seminars

#### *Graduate*

Regression/Factor Analysis, Multivariate Statistics, Advanced Statistics, Graduate Statistics, Nonparametric Methods, Structural Equation Modeling, Bayesian Methods, Sentiment Analytics, Natural Language Processing, Human Language

Course Evaluations can be provided upon request.

## Statistics Outreach

*Statistics Certificate:* I designed a statistics and research methods graduate certificate for Missouri State University. I coordinated the program, working with students to ensure they've completed the requirements in a way that matches their long-term goals. Certificate requirement are one

graduate statistics course, one research methods course, and two other electives in statistics or research based courses.

*In-Person/Online Help Desk:* The Psychology Help Desk was designed as small group tutoring/help opportunity for our statistics and research methods courses (approximately 1,500 students annually). The Help Desk holds regular open hours to accommodate students who need assistance with program or math related questions. The online Help Desk was created to reach our busy, non-traditional, and online students. I supervised the graduate assistant and practicum students who hold open hours. I trained these students, as well as create materials for the online portion of the Help Desk. The graduate assistant answered a special email box for the Help Desk and provides assistance through a special Blackboard portal. The Blackboard site was used to link students to appropriate materials, contact information for the Help Desk, and email out information as necessary.

*YouTube:* My YouTube channel contains many hours of tutorials on how to complete statistical procedures in SPSS, Excel, R, MOTE, and G\*Power. This information is used as teaching material in my courses and is open access for students/researchers to use as needed. I respond to online questions about these materials and take requests for video material.

*MOTE:* MOTE is a free R package and online app that calculates effect sizes and their non-central confidence intervals. This package was designed to fill the gap between running hypothesis testing calculations and effect sizes for students in a simple format – while also adding in confidence intervals for effect sizes because of the promotion for these values in reporting.

*Statstools.com:* The Statistics Tools website ties all these resources together in one convenient location. Materials from my courses (basic/advanced/graduate statistics and structural equation modeling) are provided with multiple formats (SPSS, Excel, R) for use by students in my courses and the interested graduate student or researcher. This information is formatted so that an individual may download the entire course for a template when assigned as a course prep.

## **Service**

### **Professional Memberships**

Psychological Science Accelerator (PSA) - Assistant Director of Training, Web Admin

Society for Computation in Psychology (SCIP) - Executive Board

Society for the Improvement of the Psychological Sciences (SIPS)

Midwestern Psychological Association (MPA)

Southwestern Psychological Association (SWPA)

Psychonomic Society - Fellow

Association for Psychological Science (APS)

Graduate and Professional Student Association



## Professional Activities

### *Journal Boards*

Behavior Research Methods, Associate Editor	2020-Current
Meta-Psychology, Editorial Board & Action Editor	2019-Current
Journal of Scientific Psychology, Consulting Editor	2009-Current

### *Journal Reviewer*

<a href="#">Publons Profile</a>	2017-Current
Reviewer for Assessment	2019-Current
Reviewer for Cognitive Science	2019-Current
Reviewer for Applied Psycholinguistics	2018-Current
Reviewer for Journal of Traumatic Stress	2018-Current
Reviewer for International Journal of Dermatology	2018-Current
Reviewer for Language Teaching Research	2018-Current
Reviewer for Psychology of Popular Media Culture	2018-Current
Reviewer for Journal of Clinical Psychology	2013-Current
Reviewer for Behavior Research Methods	2012-Current
Reviewer for the Journal of Scientific Psychology	2007-Current

### *Service Committees*

Provost Council for Web Accessibility	2018
GradCAS "Dream Team", Graduate Application Redesign	2018
Statistics Course Redesign, Chair	2018
Application System Coordinator	2014-2018
Departmental Assessment Committee	2014-2018
Graduate Council	2013-2017
Comprehensive Exam Coordinator	2013-2018
Coordinator of Statistics Help Lab	2013-2018
Graduate Review Committee	2013-2018
Multidisciplinary Forum	2012-2014
Departmental Search Committees	2012-2018
Space Utilization Committee, Chair,	2011-2018

CHHS Assessment Committee	2011-2014
Course Evaluation Redesign and Coordinator	2011-2018
RStats Consultant	2011-2018
Research Writing Group	2010-2014
Honors Thesis Supervisor	2009-2018
Masters Thesis Committees	2008-2018
Honors Thesis Committees	2009-2018
Faculty Supervisor for Photography Club	2008 – 2010
Vice President of the Student Experimental Counsel	2007-2008
Psychology Textbook Adoption Committee	2006
Treasurer of the Student Experimental Counsel	2005-2006
Psychology Recycling Committee	2004-2008
Member of the Student Experimental Counsel	2004-2008
Served as research mentor for research assistants	2004-2008
Served as a poster judge undergraduate research presentations	2004-2008

### *Advising*

Pre-Law Advisor	2012-2018
Honors College Advisor	2011-2018
Living Learning Community Faculty Advisor	2011-2012
PASS Faculty Fellow	2011-2018
Recruitment Committee, Chair	2011-2018
Major's Fair	2010-2018
Bear Claw Advisory Board	2010-2018