

James A. Grand, Ph.D.

Curriculum Vita

3147A Biology/Psychology Building
University of Maryland
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Education

- Ph.D. **Organizational Psychology**
(2012) Michigan State University, East Lansing MI
Advisor: Dr. Ann Marie Ryan
- M.A. **Organizational Psychology**
(2008) Michigan State University, East Lansing MI
Advisor: Dr. Ann Marie Ryan
- B.A. **Psychology** (Summa Cum Laude, Minor: Business Administration)
(2006) Auburn University, Auburn AL

Professional Experience

- University of Maryland** (College Park, MD)
Department of Psychology
Associate Professor 5/2021 to present
Assistant Professor 8/2014 to 5/2021
- The University of Akron** (Akron, OH)
College of Health Professions & Department of Psychology
Visiting Assistant Professor/Senior Lecturer 10/2012 to 8/2013
- Human Resources Research Organization** (Alexandria, VA)
Research Associate 5/2009 to 8/2009
Personnel Selection & Development

Publically Accessible Repositories for Research Materials/Products

Open Science Framework: <https://osf.io/vcwg6/>
GitHub: <https://github.com/grandjam>

Refereed Publications (Annotated)

† Denotes student co-author at time of publication

Banks, G.C. Knapp, D.J., Lin, L., †Sanders, C.S., & **Grand, J.A.** (in press). Ethical decision-making in the 21st century: A useful framework for industrial-organizational psychologists [Focal article]. *Industrial and Organizational Psychology: Perspectives on Science and Practice*.

Type: Position/educational paper

Data source: N/A

Robust science participation: N/A

Multidisciplinary: No

Authorship role: Contributed to development of paper idea, wrote small portion of introduction/literature review, contributed to editing/revising all drafts

Contribution: Reviewed and presented heuristic/framework for ethical decision-making geared towards IO psychologists. Presented five “case studies” across IO research, practice, and educational context that applied ethical decision-making framework to generate discourse among IO professionals on the role of ethics in IO psychology.

Rosenman E.D, †Misco, A., †Olenick, J., Broliar, S., Chipman, A.K., Vrablik, M.C., Chao, G.T., Kozlowski, S.W.J., **Grand, J.A.**, Fernandez, R. (2021). Does team leader gender matter? A Bayesian reconciliation of leadership and patient care during trauma resuscitations. *Journal of the American College of Emergency Physicians Open*, 2, e12348.

Type: Empirical (secondary source data)

Data source: Archival ([Fernandez, Rosenman et al., 2020](#); $n = 60$ residents, $k = 120$ observations)

Robust science participation: Open access publication

Multidisciplinary: Yes

Authorship role: Conducted analysis, edited and wrote portions of original and revised drafts

Contribution: Assessed team leadership effectiveness and patient care in emergency department trauma teams by male vs. female physicians during actual trauma resuscitations using video-recorded observations of leader behavior. Bayesian analyses were used to assess the plausibility of male-advantaged, female-advantaged, or null differences. Contrary to existing research, findings revealed no support for differences in trauma resuscitation team leadership or clinical care findings based on leader gender.

Grand, J.A. (2020). A general response process theory for situational judgment tests. *Journal of Applied Psychology*, 105, 819-862.

Type: Computational, Empirical (primary source data)

Data source: Experiment/eye-tracking ($n = 125$ students x 36 items = 4500 observations)

Robust science participation: Data, analyses, and computational model available at <https://osf.io/uwdfm>

Multidisciplinary: No

Authorship role: Everything

Contribution: Psychological theory of judgment and decision-making describing how individuals respond to situational judgment tests. Theory translated into computational model, computational model translated into online web application to facilitate communication (<https://grandjam.shinyapps.io/siri>). Presented model verification and validation evidence using existing empirical effects and new response time data. Utilized machine learning (supervised neural network) and hierarchical Bayesian survival analyses for model validation and testing.

Fernandez, R., Rosenman, E.D., †Olenick, J., †Misco, A., Broliar, S., Chipman, A.K., Vrablik, M.C., Kalynych, C., Arbabi, S., Nichol, G., **Grand, J.A.**, Kozlowski, S.W.J., & Chao, G.T. (2020). Simulation-based team leadership training improves team leadership during actual trauma resuscitations: A randomized controlled trial. *Critical Care Medicine*, 48, 73-82.

Type: Empirical (primary source data)

Data source: Field/non-student sample ($n = 79$ medical residents, $k = 360$ trauma resuscitations)

Robust science participation: Study registered at ClinicalTrials.gov ([NCT03155490](https://clinicaltrials.gov/ct2/show/study/NCT03155490))

Multidisciplinary: Yes

Authorship role: Assisted with development of leadership measures, study design, and behavioral coding scheme; assisted with data cleaning, management, and analyses

Contribution: Assessed effectiveness of simulation-based leadership training on team leadership and patient care during actual trauma resuscitations using a single-blind randomized design. Controlling for pre-training performance, results demonstrated that trained leaders exhibited more desirable leadership behaviors than control leaders and that improved team leadership was positively related to patient care.

†Samuelson, H.L., †Levine, B.R., †Barth, S.E., Wessel, J.L., & **Grand, J.A.** (2019). Exploring women's leadership labyrinth: Effects of hiring and developmental opportunities on gender stratification. *Leadership Quarterly*, 30, A10314.

Type: Computational

Data source: N/A

Robust science participation: All computational model and simulation code available at https://github.com/grandjam/SamuelsonEtAl_GenderStratModel

Multidisciplinary: No

Authorship role: Conceptualized problem, model, and simulation; supervised model development and construction; reviewed, edited, and contributed to writing of original and revised drafts; supervised student writing; created/manage GitHub repository and model replication materials

Contribution: Developed computational model and simulation to examine effects of hiring rates and provision of developmental opportunities on female representation in senior organizational leadership. Results demonstrate that differential entry rates of male-female employees contributes strongly to gender stratification and that effects are exaggerated by male-female differences in quality of developmental opportunities.

Dougherty, M.R., Slevc, L.R., & **Grand, J.A.** (2019). Making research evaluation more transparent: Aligning research philosophy, departmental values, and reporting. *Perspectives on Psychological Science*, 14, 361-375.

Type: Position paper

Data source: N/A

Robust science participation: Materials and examples publically available at <https://osf.io/cnb82>; preprint publically available at <https://psyarxiv.com/48/qux>

Multidisciplinary: No

Authorship role: Conceptualized problem, contributed to writing original draft, revised drafts

Contribution: Proposed methods for improving transparency of scholarship reporting through use of annotated CV, research philosophy statements, and multi-attribute utility evaluation

Rosenman, E.D., Bullard, M., Jones, K., Welsh, L., Broliar, S.M., †Levine, B.R., **Grand, J.A.**, & Fernandez, R. (2019). Development and empirical testing of a novel team leadership assessment measure: A pilot study using simulated and live patient encounters. *AEM Education and Training*, 3, 163-171.

Type: Empirical (primary and secondary source data), Measurement

Data source: Field/non-student sample, archival (k = 4 medical experts rating n = 30 video-recorded resuscitations [20 simulated, 10 actual patient care] collected in previous research)

Robust science participation: Final measure (no data) available at <https://bit.ly/2ZbKGmF>.

Multidisciplinary: Yes

Authorship role: Data analysis, measurement development

Contribution: Developed and provided validation evidence for a leadership assessment measure for use in emergency medicine resuscitation teams. Results demonstrated adequate psychometric properties for using measure in simulated conditions, but measure exhibited deficiencies when applied to actual acute care conditions

Grand, J.A., Rogelberg, S.G., Banks, G., Landis, R.S., & Tonidandel, S. (2018). From outcome to process focus: Fostering a more robust psychological science through registered reports and results-blind reviewing. *Perspectives on Psychological Science*, 13, 448-456.

Type: Review, Position paper

Data source: N/A

Robust science participation: N/A

Multidisciplinary: No

Authorship role: Conceptualized problem, primary author for original draft and revisions

Contribution: Reviewed and provided balanced perspective on efficacy of alternative publication mechanisms for promoting robust science

Grand, J.A., Rogelberg, S.G., Allen, T.D., Landis, R.S., Reynolds, D., Scott, J.C., Tonidandel, S., & Truxillo, D.M. (2018). A systems-based approach to fostering robust science in Industrial-Organizational psychology [Focal article]. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 11, 4-42.

Type: Position paper

Data source: N/A

Robust science participation: N/A

Multidisciplinary: No

Authorship role: Conceptualized problem, wrote original draft, revised drafts

Contribution: Provides a definition for robust science, identifies multiple stakeholders responsible for facilitating robust science, and provides concrete recommendations

Rosenman, E.D., Fernandez, R., Wong, A., Cassara, M., Cooper, D., Kou, M., Laack, T., Motola, I., Parsons, J., †Levine, B.R., & **Grand, J.A.** (2018). Changing systems through effective teams: A role for simulation. *Academic Emergency Medicine*, 25, 128-143.

* **Senior author listed last**

Type: Review, Translational

Data source: N/A

Robust science participation: N/A

Multidisciplinary: Yes

Authorship role: Conceptualized problem, wrote original drafts for multiple sections of paper, revised drafts, supervised student writing

Contribution: Reviewed relevant literature and provided an agenda for studying and improving team outcomes in emergency medicine

Rosenman, E., †Dixon, A., †Webb, J., Broliar, S., †Golden, S., Jones, K., Shah, S., **Grand, J.A.**, Kozlowski, S.W.J., Chao, G.T., & Fernandez, R. (2018). A simulation-based approach to measuring team situational awareness in emergency medicine: A multicenter observational study. *Academic Emergency Medicine*, 25, 196-204.

* **Senior author listed last**

Type: Empirical (primary source data)

Data source: Field/non-student sample (n = 123 individuals nested in k = 41 3-person teams)

Robust science participation: None

Multidisciplinary: Yes

Authorship role: Co-developed conceptual framework, edited drafts

Contribution: Use of self-report and behavioral measures for assessing situational awareness and its relation to team performance/patient care in emergency medicine teams

Branzetti, J., Adedipe, A.A., Gittinger, M., Rosenman, E.D., Broliar, S., Chipman, A., **Grand, J.A.**, & Fernandez, R. (2017). Randomized control trial to assess the effect of a Just-in-Time training on procedural performance: A proof of concept study to address procedural skill decay. *BMJ Quality & Safety*, 26, 881-891.

** Senior author listed last*

Type: Empirical (primary source data)

Data source: Experiment, Field/non-student sample (n = 26 individuals)

Robust science participation: None

Multidisciplinary: Yes

Authorship role: Analyzed results

Contribution: Developed and conducted preliminary validation of a training tool/technique for improving performance during a high-risk medical procedure (pacemaker placement). Training demonstrated substantial positive effect on overall performance and patient safety

†Samuelson, H., †Fernandez, J., & **Grand, J.A.** (2017). “Life doesn’t happen at the between-person level,” or a cautionary note on generating scientific inferences through meta-analyses [Commentary]. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 10, 459-464.

Type: Commentary

Data source: N/A

Robust science participation: N/A

Multidisciplinary: No

Authorship role: Conceptualized problem, developed outline, wrote paper sections, edited drafts, supervised student writing

Contribution: Described limitations of meta-analytic procedures for advancing scientific inferences, emphasized need for more process-level research in organizational sciences

Gittinger, M., Broliar, S.M., **Grand, J.A.**, Nichol, G., & Fernandez, R. (2017). Using simulation as an investigational methodology to explore the impact of technology on team communication and patient management: A pilot evaluation of the effect of an automated compression device. *Simulation in Healthcare*, 12, 139-147.

** Senior author listed last*

Type: Empirical (primary source data)

Data source: Experiment, Field/non-student sample (n = 48 individuals in 12 4-person teams)

Robust science participation: None

Multidisciplinary: Yes

Authorship role: Assisted with development of methodology, analyzed results, wrote analysis/results section, edited drafts

Contribution: Evaluated impact of using an automated chest compression device during cardiac resuscitation on team communication and performance. Results revealed that device significantly changed frequency, patterns, and type of communication behaviors within team in ways that might not be beneficial for patient care

Ryan, A.M., Reeder, M., Golubovich, J., **Grand, J.A.**, Inceoglu, I., Bartram, D., Deros, E., Nikolaou, I., & Yao, X. (2017). Cultural values and testing practices: Is the world flat? *Applied Psychology: An International Review*, 66, 434-467.

Type: Empirical (primary source data)

Data source: Survey, Field/non-student sample, Cross-cultural/-nation (n = 1153 individuals in 23 countries)

Robust science participation: None

Multidisciplinary: No

Authorship role: Assisted with development of methodology, collected survey data, edited drafts

Contribution: Updated previous research on differential use and value of different testing practices across countries/cultures. Acquired previously unexamined data on used of online testing/selection practices.

Fernandez, R., Shah, S., Rosenman, E., Kozlowski, S.W.J., Parker, S.H., & **Grand, J.A.** (2017). Developing team cognition: A role for simulation. *Simulation in Healthcare*, 12, 96-103.
* **Senior author listed last**

Type: Review, Translational

Data source: N/A

Robust science participation: N/A

Multidisciplinary: Yes

Authorship role: Conceptualized problem, wrote original draft, revised drafts

Contribution: Described concepts related to team cognition for medical researchers and educators. Provided resources for developing measures and feedback instruments for improving team cognition in medical teams using simulation-based training

Russell, T., Sparks, T., Campbell, J., Handy, K., Ramsberger, P., & **Grand, J.A.** (2017). Situating ethical behavior in the nomological network of job performance. *Journal of Business and Psychology*, 32, 253-271.

Type: Review, Theory development, Methodological, Empirical (primary source data)

Data source: Survey, Field/non-student sample (measure construction/verification – Sample 1: n = 21 subject matter experts; Sample 2: n = 14 subject matter experts)

Robust science participation: None

Multidisciplinary: No

Authorship role: Literature review, conceptualized problem, data collection, edited drafts

Contribution: Developed and validated taxonomy of ethical job behavior to complement and integrate with existing taxonomies of job performance.

Grand, J.A. (2017). Brain drain? An examination of stereotype threat effects on knowledge acquisition and organizational effectiveness. *Journal of Applied Psychology*, 102, 115-150.

Type: Empirical (primary source data), Computational

Data source: Experiment, Longitudinal/repeated measures (n = 198 individuals, 21 trials across 3 days)

Robust science participation: Data, analyses, and computational model available at <https://osf.io/twf97/>

Multidisciplinary: No

Authorship role: Everything

Contribution: Longitudinal examination of stereotype threat effects on short-term knowledge acquisition and performance. Original computational model demonstrating impact of stereotype threat on organizational human capital. All analyses conducted using Bayesian parameter estimation

Grand, J.A., Braun, M.T., Kuljanin, G., Kozlowski, S.W.J., & Chao, G.T. (2016). The dynamics of team cognition: A process-oriented theory of knowledge emergence in teams [Monograph]. *Journal of Applied Psychology*, 101, 1353-1385.

*** Distinguished as Monograph by senior editorial board at Journal of Applied Psychology**

Type: Empirical (primary source data), Computational

Data source: Experiment, Longitudinal/repeated measures (n = 789 individuals in 263 3-person teams)

Robust science participation: Computational model available at <https://bit.ly/2GaU6tH>

Multidisciplinary: No

Authorship role: Co-conceptualized problem, co-analyzed model and empirical results, wrote original draft, revised drafts

Contribution: First computational theory of emergent process in JAP. Demonstrated effects of learning and communication patterns on team knowledge emergence. Validated efficacy of computational theory and generative principles for enhancing team cognition using experimental data and original training materials.

Kozlowski, S.W.J., Chao, G.T., **Grand, J.A.**, Braun, M.T., & Kuljanin, G. (2016). Capturing the multilevel dynamics of emergence: Computational modeling, simulation, and virtual experimentation. *Organizational Psychology Review*, 6, 3-33.

Type: Theory development, Review, Methodological

Data source: N/A

Robust science participation: N/A

Multidisciplinary: No

Authorship role: Co-conceptualized problem, wrote original draft for multiple paper sections, revised drafts

Contribution: Described methodological approach for using computational modeling as theory-building tool and experimental platform for studying emergent processes

Fernandez, R., & **Grand, J.A.** (2015). Leveraging social science-healthcare collaborations to improve teamwork and patient safety. *Current Problems in Pediatric and Adolescent Health Care*, 45, 370-377

** Senior author listed last*

Type: Translational, Review

Data source: N/A

Robust science participation: N/A

Multidisciplinary: Yes

Authorship role: Conceptualized problem, wrote original draft, edited revisions

Contribution: Described how to facilitate collaborations between healthcare researchers/educators and social scientists and unique expertise that both parties provide for improving medical teamwork and patient care

Golubovich, J., **Grand, J.A.**, Ryan, A.M., & Schmitt, N. (2014). An examination of common sensitivity review practices in test development. *International Journal of Selection and Assessment*, 22, 1-11.

Type: Empirical (primary source data)

Data source: Field/non-student sample (n = 49 professional test reviewers)

Robust science participation: None

Multidisciplinary: No

Authorship role: Conceptualized problem, developed survey items, assisted with analysis, co-wrote original draft and revisions

Contribution: Summarized descriptive data on sensitivity review practices involved in hiring and educational testing contexts. Revealed lack of training and guidance on best practices for conducting sensitivity reviews and demonstrated the implications of this variability on professional ratings of item sensitivity

Fernandez, R., Pearce, M., **Grand, J.A.**, Rench, T.A., Jones, K.A., Chao, G.T., & Kozlowski, S.W.J. (2013). Evaluation of a computer-based educational intervention to improve medical

teamwork and performance during simulated patient resuscitations. *Critical Care Medicine*, 41, 2551-2562.

*** Recognized in Best Publications of 2013 for education research in emergency medicine (Farrell, Kuhn, et al. (2014). Critical appraisal of emergency medicine education research: The best publications of 2013. Academic Emergency Medicine, 21, 1274-1283.)**

*** Senior author listed last**

Kozlowski, S.W.J., Chao, G.T., **Grand, J.A.**, Braun, M.T., & Kuljanin, G. (2013). Advancing multilevel research design: Capturing the dynamics of emergence. *Organizational Research Methods*, 16, 581-615.

*** Recipient of 2016 Emerald Group Publishing Citations of Excellence Award for papers published in 2013**

*** Recipient of 2015 SIOP William A. Owens Scholarly Achievement Award for Best Publication in the field of I/O Psychology in 2013-2014**

*** Recipient of 2014 SAGE ORM Best Paper Award (Academy of Management)**

Grand, J.A., Golubovich, J., Ryan, A.M., & Schmitt, N. (2013). The detection and influence of problematic item content in ability tests: An examination of sensitivity review practices for personnel selection test development. *Organizational Behavior and Human Decision Processes*, 121, 158-173.

Grand, J.A., Pearce, M., Rench, T., Fernandez, R., Chao, G.T., & Kozlowski, S.W.J. (2013). Going DEEP: Guidelines for building simulation-based team assessments. *BMJ Quality & Safety*, 22, 436-448.

*** Senior author listed last**

Grand, J.A., Lloyd, J.W., Ilgen, D.R., Abood, S., & Sonea, I.M. (2013). A measure of and predictors for veterinarian trust developed with veterinary students in a simulated companion animal practice. *Journal of the American Veterinary Medical Association*, 242, 322-334.

Grand, J.A., Ryan, A.M., Schmitt, N., & Hmurovic, J. (2011). How far does stereotype threat reach? The potential detriment of face validity in cognitive ability testing. *Human Performance*, 24(1), 1-28.

Book Chapters & Other Publications

†Denotes student co-author at time of publication

†Samuelson, H.L., †Lee, J., Wessel, J.L., & **Grand, J.A.** (in press). Computational modeling in organizational diversity and inclusion. In J.B. Vancouver, M. Wang, & J. Weinhardt (Eds.), *Computational modeling for industrial-organizational psychologists*.

†Strauss, J., & **Grand, J.A.** (2020). Promoting robust and reliable big data research in psychology. In S.E. Woo, L. Tay, & R. Proctor (Eds.), *Big data in psychological research*. (pp. 373-392). Washington, DC: American Psychological Association.

- Kozlowski, S.W.J., **Grand, J.A.**, Baard, S., & Pearce, M. (2015). Teams, teamwork, and team effectiveness: Implications for human systems integration. In D. Boehm-Davis, F. Durso, & J. Lee (Eds.), *The handbook of human systems integration*. (pp. 555-571). Washington, DC: American Psychological Association.
- Ryan, A.M., Inceoglu, I., Bartram, D., Golubovich, J., **Grand, J.A.**, Reeder, M., Derous, E., Nikolaou, I., & Yao, X. (2015). Trends in testing: Highlights of a global survey. In I. Nikolaou and J. Oostrom (Eds.), *Employee recruitment, selection, and assessment: Contemporary issues for theory and practice*. (pp. 136-153). New York, NY: Psychology Press.
- Grand, J.A.**, & Kozlowski, S.W.J. (2013). Eight basic principles for adaptability training in synthetic learning environments. In C. Best, G. Galanis, J. Kerry, & R. Sottolare (Eds.), *Fundamental issues in defense training and simulation*. (pp. 97-114). Aldershot, UK: Ashgate.
- Leong, F.T.L., & **Grand, J.A.** (2008). Career and work implications of the Model Minority Myth and other stereotypes for Asian Americans. In G. Li & L. Wang (Eds.), *Model Minority Myths revisited: An interdisciplinary approach to demystifying Asian American education experiences*. (pp. 91-115) Charlotte, NC: Information Age Publishing.

Manuscripts & Chapters in Progress

† Denotes student co-author at time of publication

- †Strauss, J., & **Grand, J.A.** (1st revision submitted). Returning to the beginning: Applying systems science to advance research on team phenomena. *Research in Human Resource Management*.
- Fernandez, R., Rosenman, E.D., Broliar, S.M., Arbabi, S., Kozlowski, S.W.J., **Grand, J.A.**, Chao, G.T., & Nichol, G. (1st revision submitted). Translating simulation-based team leadership training into patient-level outcomes: A randomized controlled trial study protocol. *Simulation in Healthcare*.
- †Strauss, J., *Yan, L., *Tronetti, A., & **Grand, J.A.** (in preparation). Telework and teamwork in response to COVID-19. Target: *Journal of Applied Psychology*
- Kuljanin, G., Olenick, J., Braun, M.T., **Grand, J.A.**, Kozlowski, S.W.J., & Chao, G.T. (in preparation). Advancing theory and empirics in leadership and organizational behavior via computational theorizing. Target: *The Leadership Quarterly*

Research Contracts & Grants

Current**Defense Medical Research and Development Program (JPC-1)** 1/2019 to 8/2021*Translating military simulation-based trauma team research into outcomes:**LEADing effective resuscitations*

Total Award: \$1,799,929 (Award at UMD = \$202,899)

Role: Co-Principal Investigator

Co-PI: Rosemarie Fernandez

Completed**U.S. Army Research Institute for the Behavioral and Social Sciences** 1/2018 to 1/2021*Assessing negative leader behavior: Information processing explanation
for ideal point IRT responses*

Total Award: \$67,901

Role: Co-Principal Investigator

Co-PI: Paul Hanges

U.S. Army Research Institute for the Behavioral and Social Sciences 5/2014 to 12/2020*A computational modeling approach to organizational effectiveness:
Mapping the effects of leadership, group structure, and environmental shocks*

Total Award: \$1,734,579

Role: Co-Investigator

PI: Steve W.J. Kozlowski, Georgia T. Chao

Defense Medical Research and Development Program (JPC-1) 9/2015 to 4/2019*Development of an integrated team training design and assessment
architecture to support adaptability in healthcare teams*

Total Award: \$1,149,975 (Award at UMD = \$225,635)

Role: Co-Principal Investigator

Co-PI: Rosemarie Fernandez

Physio-Control, Inc. 1/2013 to 12/2014*Preliminary design of a pilot study to evaluate the impact of an
automated chest compression device on critical teamwork behaviors and clinical care*

Total Award: \$50,000

Role: Consultant

PI: Rosemarie Fernandez

University of Washington Patient Safety Innovations Program 1/2013 to 12/2014*Development of a training intervention to decrease procedure-related errors*

Total Award: \$50,000

Role: Consultant

PI: Rosemarie Fernandez

Agency for Healthcare Research and Quality

6/2011 to 6/2014

Improving patient safety through simulation research

Total Award: \$1,050,000

Role: Research Assistant & Consultant

PI: Rosemarie Fernandez, Steve W.J. Kozlowski

U.S. Office of Naval Research

1/2009 to 9/2013

Team knowledge: Origins, emergence, and measurement

Total Award: \$1,365,614

Role: Research Assistant

PI: Steve W.J. Kozlowski, Georgia T. Chao

SIOP Foundation Small Grant Award

4/2011 to 7/2012

Cross-cultural comparison of testing practices

Total Award: \$6,700

Role: Co-Investigator

PI: Ann Marie Ryan

Not Awarded**National Science Foundation (Science of Organizations)**

1/2020

Team knowledge-building and sense-making in unpredictable and uncertain environments

Award Requested: \$389,584

Role: Principal Investigator

U.S. Army Research Institute for the Behavioral and Social Sciences

9/2017

System robustness and adaptation: A multilevel, process-oriented, computational modeling approach

Award Requested: \$824,516 (Award at UMD = \$230,013)

Role: Co-Principal Investigator

Co-PI: Steve W.J. Kozlowski, Georgia T. Chao, Michael Braun, Goran Kuljanin

Defense Medical Research and Development Program (JPC-1)

5/2016

Swift team coherence (SWIFTCO): A model and training curriculum for developing high performing teams

Award requested: \$1,200,000 (Award at UMD: \$225,000)

Role: Co-Investigator

PI: Rosemarie Fernandez, Sarah Henrickson-Parker

Office of Naval Research (Young Investigator Program)

11/2015

Improving information acquisition, distribution, and integration for effective decision-making in distributed expertise teams

Award Requested: \$450,000 (Award at UMD = \$190,000)

Role: Principal Investigator

Co-PI: Michael T. Braun

Honors & Awards

University of Maryland Department of Psychology Outstanding Faculty Research Mentor (2019)

Journal of Applied Psychology Monograph (2016)

Emerald Group Publishing Citations of Excellence Award (2016)

SIOP William A. Owens Scholarly Achievement Award for Best I/O Publication (2015)

SAGE Organizational Research Methods Best Paper Award (Academy of Management) (2014)

Michigan State University I/O Department Fellowship (2006)

Invited Presentations & Colloquia

Grand, J.A. (February, 2021). *Whither theory in a big data world?* Invited presentation at Rice University workshop on Workforce Science in the Big Data Era: Improving Measurement, Modeling, and Meaning, Houston, TX.

Grand, J.A. (October, 2019). *You know I'm all about that Bayes: A (relatively) gentle introduction to Bayesian statistics.* Invited presentation for University of Maryland SDOS program brown bag series, College Park, MD.

Grand, J.A. (September, 2019). *Want to become IO psyc's next top model(er)? Foundations & principles of computational modeling for organizational researchers.* Invited presentation for George Mason University IO Psychology program brown bag series, Fairfax, VA.

Grand, J.A. (December, 2018). *Want to become IO psyc's next top model(er)? Foundations & principles of computational modeling for organizational researchers.* Invited presentation for George Washington University IO Psychology program research discussion series, Washington, DC.

Grand, J.A. (September, 2018). *Want to become IO psyc's next top model(er)? Foundations & principles of computational modeling for organizational researchers.* Invited presentation for University of Georgia IO Psychology program brown bag series, Athens, GA.

Grand, J.A. (April, 2018). *Context and recommendations for robust science in SIOP.* Invited Executive Board symposium presented at the 33rd annual meeting of the Society for Industrial and Organizational Psychology, Chicago, IL.

Grand, J.A. (March, 2018). *Think big, act small: Efforts to foster robust science.* Invited presentation at the University of Florida Warrington College of Business Workshop for Promoting Robust and Reliable Research Practice in the Science of Organizations, Gainesville, FL.

Grand, J.A. (November, 2017). *Principles for robust science*. Invited presentation at Consortium for the Advancement of Research Methods and Analysis (CARMA) Conference Australia, Adelaide, Australia.

Rosenman, E.D., & **Grand, J.A.** (May, 2017). *Changing systems through effective teams*. Invited presentation at Academic Emergency Medicine Consensus Conference, Orlando, FL.

Grand, J.A. (October, 2015). *Opening the black boxes: Myths and realities of computational modeling*. Invited presentation at Ohio University Computational Modeling Workshop, Athens, OH.

Grand, J.A. (April, 2015). *I/O without borders: Our impact in a multidisciplinary world*. Invited Executive Board symposium presented at the 30th annual meeting of the Society for Industrial and Organizational Psychology, Philadelphia, PA.

Workshops

Grand, J.A., & Rand, W. (November, 2018). *Foundations for developing, reviewing, and constructing agent-based models*. Invited seminar/workshop at the Army Research Institute for the Behavioral and Social Sciences, Ft. Belvoir, VA.
[doi:10.5281/zenodo.33575840](https://doi.org/10.5281/zenodo.33575840)

Fernandez, R., Compton, S., Redman, R., **Grand, J.A.,** & Zalenski, R. (2009, January). *Promoting excellence in end-of-life care: Developing a blended simulation-based educational experience for healthcare practitioners*. Workshop presented at the 9th annual International Meeting on Simulation in Healthcare, Orlando, FL.

Refereed Presentations & Posters

† Denotes student presenter/co-author at time of presentation

* Denotes undergraduate student co-author at time of presentation

†Strauss, J., †Yan, L., *Tronetti, A., & **Grand, J.A.** (April, 2021). Transition to telework: Lessons from the COVID-19 pandemic. Symposium presentation at the 36th annual meeting of the Society for Industrial and Organizational Psychology, New Orleans, LA.

Braun, M.T., Olenick, J., **Grand, J.A.,** Kozlowski, S.W.J., Kuljanin, G., Weinhardt, J.M., & Zhou, L. (April, 2020). *Understanding what, when, why, and how to begin using computational models*. Panel discussion at the 36th annual meeting of the Society for Industrial and Organizational Psychology, New Orleans, LA.

Grand, J.A., Kuljanin, G., Braun, M.T., Chao, G.T., & Kozlowski, S.W.J. (April, 2021). *Dynamic bottom-up effects of a newcomer on team cohesion*. Symposium presentation at the 36th annual meeting of the Society for Industrial and Organizational Psychology, New Orleans, LA.

Grand, J.A. (April, 2021). *Hello world! Getting started with computational modeling*. Symposium presentation at the 36th annual meeting of the Society for Industrial and Organizational Psychology, New Orleans, LA.

Braun, M.T., Olenick, J., **Grand, J.A.**, Kuljanin, G., Weinhardt, J.M., & Zhou, L. (April, 2020). *Getting started with computational modeling: Understanding what, when, why, and how*. Panel discussion at the 35th annual meeting of the Society for Industrial and Organizational Psychology, Austin, TX.

*** Conference cancelled due to COVID-19 pandemic**

Grand, J.A., Kuljanin, G., Braun, M.T., Chao, G.T., & Kozlowski, S.W.J. (April, 2020). *Bottom-up influence in organizational systems: Does one person make a difference?* Symposium presentation at the 35th annual meeting of the Society for Industrial and Organizational Psychology, Austin, TX.

*** Conference cancelled due to COVID-19 pandemic**

Grand, J.A. (April, 2020). *Hello world! Tools, techniques, and getting started with computational modeling*. Symposium presentation at the 35th annual meeting of the Society for Industrial and Organizational Psychology, Austin, TX.

*** Conference cancelled due to COVID-19 pandemic**

†Epistola, J., †Samuelson, H., **Grand, J.A.**, & Hanges, P.J. (August, 2019). *Measuring leaders behaving badly: Improving forced-choice assessment of negative leadership*. Symposium presented at the 79th annual meeting of the Academy of Management, Boston, MA.

Grand, J.A., Braun, M.T., Kuljanin, G., Kozlowski, S.W.J., & Chao, G.T. (August, 2019). *How can teams be more (or less) than the sum of their parts?* Symposium presented at the 79th annual meeting of the Academy of Management, Boston, MA.

Grand, J.A., Kuljanin, G., Braun, M.T., Chao, G.T., & Kozlowski, S.W.J. (July, 2019). *Unpacking team cohesion and leadership emergence*. Symposium presented at the 14th annual meeting of the Interdisciplinary Network for Group Research (INGRoup), Lisbon, Portugal.

Grand, J.A. (July, 2019). *Exploring teams as complex systems: Mechanisms of emergent affective/motivational team properties*. Symposium chaired at the 14th annual meeting of the Interdisciplinary Network for Group Research (INGRoup), Lisbon, Portugal.

Grand, J.A. & Kozlowski, S.W.J. (May, 2019). *Priming the pump: Principles for computational theory development*. Symposium presented at the 19th annual meeting of the European Association of Work and Organizational Psychology, Turin, Italy.

- Grand, J.A.** (April, 2019). *“Actors, not factors”: Principles for building and testing computational theories*. Symposium presented at the 34th annual meeting of the Society for Industrial and Organizational Psychology, National Harbor, MD.
- Kuljanin, G., & **Grand, J.A.** (April, 2019). *Modeling emergent phenomena: Implementations and process insights*. Symposium chaired at the 34th annual meeting of the Society for Industrial and Organizational Psychology, National Harbor, MD.
- Grand, J.A.**, & †Levine, B.R. (April, 2019). *Understanding judgment in situational judgment tests*. Symposium presented at the 34th annual meeting of the Society for Industrial and Organizational Psychology, National Harbor, MD.
- †Levine, B.R., **Grand, J.A.**, Fernandez, R., Rosenman, E.D., Broliar, S., Kozlowski, S.W.J., & Chao, G.T. (August, 2018). *Development of a generalizable method for assessing, predicting, and improving team adaptability*. Poster presented at the 10th annual meeting of Military Health System Research Symposium, Orlando, FL.
- Fernandez, R., Rosenman, E.D., Broliar, S., Kozlowski, S.W.J., Chao, G.T., †Levine, B.R., & **Grand, J.A.** (August, 2018). *Development of an integrated team training design architecture to support adaptability in healthcare teams*. Poster presented at the 10th annual meeting of Military Health System Research Symposium, Orlando, FL.
- Hill, N.S., Trinh, M.P., Coen, C., **Grand, J.A.**, Kennedy, D.M., & Kozlowski, S.W.J. (July, 2018). *Using computational simulation to study dynamics and emergence in team research*. Panel discussion presented at the 13th annual meeting of the Interdisciplinary Network for Group Research (INGRoup), Bethesda, MD.
- Grand, J.A.** (April, 2018). *Myths and realities of computational modeling*. Symposium presented at the 33rd annual meeting of the Society for Industrial and Organizational Psychology, Chicago, IL.
- Grand, J.A.** (April, 2018). *Promoting prediction: Tools for advancing team research*. Symposium presented at the 33rd annual meeting of the Society for Industrial and Organizational Psychology, Chicago, IL.
- Kuljanin, G. Braun, M.T., **Grand, J.A.**, Kozlowski, S.W.J., & Chao, G.T. (April, 2018). *Leadership and teamwork under varying task environments: A computational examination*. Symposium presented at the 33rd annual meeting of the Society for Industrial and Organizational Psychology, Chicago, IL.
- †Samuelson, H.L., †Barth, S.E., †Levine, B.R., Wessel, J.L., & **Grand, J.A.** (April, 2017). *Computational modeling in the study of diversity*. Symposium presented at the 32nd annual meeting of the Society for Industrial and Organizational Psychology, Orlando, FL.

- DeChurch, L.A., **Grand, J.A.**, & Jundt, D.K. (April, 2017). *Multiteam systems*. Community of interest presented at the 32nd annual meeting of the Society for Industrial and Organizational Psychology, Orlando, FL.
- †Levine, B.R., †Barth, S.E., †Samuelson, H.L., Wessel, J.L., & **Grand, J.A.** (April, 2017). *Underneath the glass ceiling: Modeling gender stratification in organizations*. Symposium presented at the 32nd annual meeting of the Society for Industrial and Organizational Psychology, Orlando, FL.
- Grand, J.A.**, Kuljanin, G., Braun, M.T., Kozlowski, S.W.J., & Chao, G.T. (April, 2017). *Task environments and team effectiveness: A computational exploration*. Symposium presented at the 32nd annual meeting of the Society for Industrial and Organizational Psychology, Orlando, FL.
- Grand, J.A.** & Nicklin, J.M. (April, 2017). *Impact, contribution, and the culture of science in I-O Psychology*. Panel discussion chaired at the 32nd annual meeting of the Society for Industrial and Organizational Psychology, Orlando, FL.
- Grand, J.A.** & †Levine, B.R. (April, 2017). *A tale of two responses: Preliminary evidence for a cognitive processing model of SJT responding*. Symposium presented at the 32nd annual meeting of the Society for Industrial and Organizational Psychology, Orlando, FL.
- Gittinger, M., Broliar, S., **Grand, J.A.**, Nichol, G., & Fernandez, R. (May, 2016). Impact of an automated chest compression device on team communication during simulated emergency department cardiac arrest resuscitations: A pilot study. Poster/abstract presented at the 2016 Annual Meeting of the Society for Academic Emergency Medicine, New Orleans, LA.
- Grand, J.A.**, Pearce, M., Fernandez, R., Kozlowski, S.W.J., & Chao, G.T. (April, 2016). *Disentangling teamwork and taskwork over time: A complex affair*. Symposium presented at the 31st annual meeting of the Society for Industrial and Organizational Psychology, Anaheim, CA.
- Grand, J.A.**, Reeder, M., & Allen, M. (April 2016). *Thinking, fast and slow: A conceptual framework for SJT performance*. Poster presented at the 31st annual meeting of the Society for Industrial and Organizational Psychology, Anaheim, CA.
- Braun, M.T., **Grand, J.A.**, Kuljanin, G., Kozlowski, S.W.J., & Chao, G.T. (April, 2016). *A computational integration of procedural and outcome interdependence in teams*. Symposium presented at the 31st annual meeting of the Society for Industrial and Organizational Psychology, Anaheim, CA.
- Gittinger, M., Broliar, S., **Grand, J.A.**, Nichol, G., & Fernandez, R. (November, 2015). Impact of an automated chest compression device on team communication during simulated

cardiac arrest resuscitations—A pilot study. Poster/abstract presented at the American Heart Association's 2015 Scientific Sessions and Resuscitation Science Symposium, Orlando, FL.

Grand, J.A., Braun, M.T., Kuljanin, G., Kozlowski, S.W.J., & Chao, G.T. (August, 2015). *An investigation of team knowledge-building processes: A multilevel, multi-temporal perspective*. Symposium presented at the 75th annual meeting of the Academy of Management, Vancouver, BC.

Grand, J.A. (July, 2015). *Leadership in extreme action teams*. Symposium presented at the 10th annual meeting of the Interdisciplinary Network for Group Research (INGRoup), Pittsburgh, PA.

Fernandez, R., Patterson, M., Su, L., **Grand, J.A.,** Waller, M., & Parker, S.H. (July, 2015). *Leadership and decision-making in adaptive action teams: Theory, research, and practice*. Panel discussion presented at the 10th annual meeting of the Interdisciplinary Network for Group Research (INGRoup), Pittsburgh, PA.

Fernandez, R., Baard, S., Golden, S., **Grand, J.A.,** Chao, G.T., & Kozlowski, S.W.J. (April, 2015). *Description of a novel team leadership training program*. Symposium presented at the 2015 International Symposium on Human Factors and Ergonomics in Health Care, Baltimore, MD.

Grand, J.A. (April, 2015). *Modeling and simulation in I/O psychology: A world of opportunity*. Symposium chaired at the 30th annual meeting of the Society for Industrial and Organizational Psychology, Philadelphia, PA.

Kuljanin, G., Braun, M.T., **Grand, J.A.,** Chao, G.T., & Kozlowski, S.W.J. (April, 2015). *Modeling the temporal dynamics of team process*. Symposium presented at the 30th annual meeting of the Society for Industrial and Organizational Psychology, Philadelphia, PA.

Grand, J.A., & Ryan, A.M. (April, 2015). *Brain drain? An examination of stereotype threat effects during training*. Poster session presented at the 30th annual meeting of the Society for Industrial and Organizational Psychology, Philadelphia, PA.

Russell, T.L., Sparks, T.E., Campbell, J.P., Handy, K., Ramsberger, P., & **Grand, J.A.** (April, 2015). *Defining and assessing ethical behavior at work*. Poster session presented at the 30th annual meeting of the Society for Industrial and Organizational Psychology, Philadelphia, PA.

Grand, J.A., & Kuljanin, G. (2014, May). *Let the data speak! Bayesian inferences in organizational sciences*. Symposium presented at the 29th annual meeting of the Society for Industrial and Organizational Psychology, Honolulu, HI.

- Grand, J.A.,** & Chao, G.T. (2014, May). *Computational modeling: Advancing research on team dynamics*. Symposium co-chaired at the 29th annual meeting of the Society for Industrial and Organizational Psychology, Honolulu, HI.
- Grand, J.A.,** Kozlowski, S.W.J., Chao, G.T., Braun, M.T., & Kuljanin, G. (2014, May). *A methodological framework for studying multilevel emergent dynamics*. Symposium presented at the 29th annual meeting of the Society for Industrial and Organizational Psychology, Honolulu, HI.
- Pickhardt, D., Mak, S., Kozlowski, S.W.J., Chao, G.T., **Grand, J.A.,** Braun, M.T., & Kuljanin, G. (2014, May). *Team macrocognition: Integrating computational modeling and research methods*. Symposium presented at the 29th annual meeting of the Society for Industrial and Organizational Psychology, Honolulu, HI.
- Grand, J. A.,** Pearce, M., & Kozlowski, S. W. J. (2013, August). *Investigating the episodic relationship between team processes and performance*. Symposium presented at the 73rd annual meeting of the Academy of Management, Orlando, FL.
- Conrad, M., & **Grand, J.A.** (2013, May). *What works for IPE activity design: From faculty ownership to student engagement*. Podium presentation presented at The Ohio Consortium of Nursing Learning Labs, Columbus, OH.
- Kozlowski, S.W.J., Chao, G.T., **Grand, J.A.,** Braun, M.T., Kuljanin, G., Pickhardt, D., & Mak, S. (2013, April). *Macrocognition in teams: Agent-based interventions and the emergence of team knowledge*. Symposium presented at the 28th annual meeting of the Society for Industrial and Organizational Psychology, Houston, TX.
- Reeder, M.C., Inceoglu, I., Bartram, D., Ryan, A.M., Golubovich, J., & **Grand, J.A.** (2013, April). *Implementation equivalence: Do cultural values affect testing practice?* Symposium presented at the 28th annual meeting of the Society for Industrial and Organizational Psychology, Houston, TX.
- Grand, J.A.,** Pearce, M., Rench, T.A., Chao, G.T., Fernandez, R., & Kozlowski, S.W.J. (2013, January). *Going DEEP: A procedural methodology for developing and improving assessment tools for simulation-based team training initiatives*. Podium presentation presented at the 13th annual International Meeting on Simulation in Healthcare, Orlando, FL.
- Fernandez, R., Pearce, M., **Grand, J.A.,** Rench, T.A., Brooks-Buza, H., Chao, G.T., & Kozlowski, S.W.J. (2013, January). *Evaluation of a computer-based educational intervention to improve medical teamwork and performance during simulated patient resuscitations*. Poster session presented at the 13th annual International Meeting on Simulation in Healthcare, Orlando, FL.

- Grand, J.A.**, Allen, M.T., & Pearlman, K. (2012, April). *The role of general and specific knowledge in SJT scores*. Symposium presented at the 27th annual meeting of the Society for Industrial and Organizational Psychology, San Diego, CA.
- Kozlowski, S.W.J., Chao, G.T., **Grand, J.A.**, Braun, M.T., & Kuljanin, G. (2012, April). *BOIDS, DROIDS, & NOIDS: Description and implications of an integrative research paradigm on macrocognition*. Symposium presented at the 27th annual meeting of the Society for Industrial and Organizational Psychology, San Diego, CA.
- Pearce, M., Kozlowski, S.W.J., Chao, G.T., Fernandez, R., **Grand, J.A.**, Rench, T.A., Huang, J.L., & Curran, P.G. (2012, April). *Enhancing emergency medical team performance via team process training*. Symposium presented at the 27th annual meeting of the Society for Industrial and Organizational Psychology, San Diego, CA.
- Pearce, M., Kozlowski, S. W. J., Chao, G. T., **Grand, J. A.**, Rench, T. A., Huang, J. L., & Curran, P. G. (2011, July). *A high-fidelity research paradigm for examining action teams*. Paper presented at the 6th annual INGRoup conference, Minneapolis, MN.
- Grand, J.A.**, Huang, J.L., Ryan, A.M., Honeybourne, C., & Delaney, T. (2011, April). *A tale of two countries: Culture and multinational selection practices*. Symposium presented at the 26th annual meeting of the Society for Industrial and Organizational Psychology, Chicago, IL.
- Golubovich, J., **Grand, J.A.**, Schmitt, N., & Ryan, A.M. (2011, April). *Examining differential item functioning of "insensitive" test items*. Poster session presented at the 26th annual meeting of the Society for Industrial and Organizational Psychology, Chicago, IL.
- Kozlowski, S.W.J., Chao, G.T., **Grand, J.A.**, Keeney, J., Braun, M.T., & Kuljanin, G. (2011, April). *Macrocognition and teams: The emergence and measurement of team knowledge*. Symposium presented at the 26th annual meeting of the Society for Industrial and Organizational Psychology, Chicago, IL.
- Grand, J.A.**, Golubovich, J., Ryan, A.M., & Schmitt, N. (2010, April). *Beyond skin deep: Investigating the "Who" of the sensitivity review*. Symposium presented at the 25th annual meeting of the Society for Industrial and Organizational Psychology, Atlanta, GA.
- Golubovich, J., **Grand, J.A.**, Ryan, A.M., & Schmitt, N. (2010, April). *Sensitivity review practices*. Symposium presented at the 25th annual meeting of the Society for Industrial and Organizational Psychology, Atlanta, GA.
- Rench, T.A., Fernandez, R., Chao, G.T., Kozlowski, S.W.J., **Grand, J.A.**, Huang, J.L., & Curran, P. (2010, January). *An evidence-based approach to rater training and assessment in human patient simulations: Building a quality research tool*. Poster presented at the 10th Annual International Meeting on Simulation in Healthcare, Phoenix, AZ.

Grand, J.A., Ryan, A.M., Schmitt, N., & Hmurovic, J. (2009, April). *Saving face (validity)? The potential detriment of context specific testing*. Poster session presented at the 24th annual meeting of the Society for Industrial and Organizational Psychology, New Orleans, LA.

Hmurovic, J., Ryan, A.M., Schmitt, N., & **Grand, J.A.** (2009, April). *Sensitivity or stereotype threat? Effects of gendered test content*. Poster session presented at the 24th annual meeting of the Society for Industrial and Organizational Psychology, New Orleans, LA.

Grand, J.A., Fernandez, R., Kozlowski, S.W.J., Chao, G.T., Huang, J.L., & Curran, P. (2009, January). *Designing, developing, and evaluating event-based team simulations: Helping medical educators put theory into practice*. Poster session presented at the 9th annual International Meeting on Simulation in Healthcare, Orlando, FL.

Schmidt, G.B., Park, G.H., Huang, J., Ghuman, S., Fandre, J., & **Grand, J.A.** (2008, August). *Job apathy: An investigation of its antecedents and work-related outcomes*. Poster session presented at the 68th annual meeting of the Academy of Management, Anaheim, CA.

Grand, J.A. (2008, April). *Changing Gears: Modeling gender differences in mechanical comprehension test performance*. Poster session presented at the 23rd annual meeting of the Society for Industrial and Organizational Psychology, San Francisco, CA.

Irons, J.G., Bradford, D., **Grand, J.A.**, McGrew, J., Brice, S., Simmons, L., & Correia, C.J. (2007, February). *Physiological and mood effects of caffeine on healthy young adults*. Paper presented at the meeting of the 53rd annual meeting of the Southeastern Psychological Association, New Orleans, LA.

Referred Abstracts & Proceedings

† Denotes student presenter/co-author at time of presentation

Rosenman, E.D., Misco, A., Olenick, J., Chipman, A.K., Vrablik, M.C., Broliar, S.M., Kalynych, C., **Grand, J.A.**, Chao, G.T., Kozlowski, S.W.J., & Fernandez, R. (2019). Does gender matter? Addressing the question of gender superiority in resuscitation leadership. *Circulation*, 140, A190.

Fernandez, R., Rosenman, E.D., Chipman, A.K., Broliar, S., Vrablik, M.C., Misco, A.T., Olenick, J., **Grand, J.A.**, Kalynych, C., Kozlowski, S.W.J., & Chao, G.T. (2019). Translating simulation-based team leadership training into patient-centered outcomes. *Journal of Clinical and Translational Science*, 3, 57-58.

†Archibald, E., †Bao, L., Coen, C.A., **Grand, J.A.**, †Gupta, P., & Trinh, M.P. (2019). *Application of agent-based modeling (ABM) in organizational research on teams and groups*. *Academy of Management Proceedings*, 2019, 15008.

†Samuelson, H.L., †Levine, B.R., †Barth, S.E., Wessel, J.L., & **Grand, J.A.** (2018). The effects of developmental opportunities and external hiring in a gender stratification. *Leadership Excellence and Gender in Organizations*, 2, 4.

Gittinger, M., Broliar, S., **Grand, J.A.**, Nichol, G., & Fernandez, R. (2016). Impact of an automated chest compression device on team communication during simulated emergency department cardiac arrest resuscitations: A pilot study. *Academic Emergency Medicine*, 23, 606.

Gittinger, M., Broliar, S., **Grand, J.A.**, Nichol, G., & Fernandez, R. (2015). Impact of an automated chest compression device on team communication during simulated cardiac arrest resuscitations: A pilot study. *Circulation*, 132, A15955.

Fernandez, R., Pearce, M., **Grand, J.A.**, Rench, T., Jones, K., Chao, G.T., & Kozlowski, S.W.J. (2013). A randomized comparison study to evaluate the effectiveness of a computer-based teamwork training intervention on medical teamwork and patient care performance. *Academic Emergency Medicine*, 20, S125.

Teaching Activities

Undergraduate Courses

Survey of Industrial/Organizational Psychology
Introduction to Experimental Psychology
Psychology of Small Group Behavior
Research Design and Measurement in Psychological Research

Graduate Courses

Introduction to Industrial/Organizational Psychology
Multilevel Theory & Dynamics
Theory of Decision and Choice
Research Methods in Social and Organizational Psychology

Teaching/Professional Development Activities

<i>Python Workshop</i>	1/2017
<ul style="list-style-type: none"> Four-day workshop sponsored by UMD College of Behavioral and Social Sciences on Python programming language for research and teaching 	
<i>Teaching Big Data Workshop</i>	1/2016
<ul style="list-style-type: none"> Two-day workshop sponsored by sponsored by UMD College of Behavioral and Social Sciences for integrating data science analytics into undergraduate/graduate teaching in the social sciences 	
<i>Undergraduate Teaching Workshop</i>	1/2015 to 6/2015

- Six-day workshop sponsored by UMD College of Behavioral and Social Sciences on strategies and techniques for improving undergraduate teaching

Consulting Experience

Human Resources Research Organization

5/2009 to 8/2009

Research Associate/Intern, Alexandria, VA

Supervisor: Deborah Whetzel, Personnel Selection & Development Program

- Example work included data collection, management and analyses; development of ability (mathematical & mechanical) and situational judgment tests; assistance with pilot testing and delivery of assessment center; writing technical and research reports

Employee Goal-Setting & Managerial/Employee Training

8/2008 to 5/2009

Supervised Consultant, Lansing, MI

Collaborator: Karen DeShon

- Examined goal-setting components of performance evaluation process in a medium-sized construction management company; redesigned goal-setting system/procedures to align with new organizational performance standards

I/O At Work (HRCatalyst, Inc.)

5/2008 to 12/2008

Blogger, Lansing, MI

- Wrote numerous short translation summaries of peer reviewed journal articles targeted towards HR professionals

Employee Feedback Audit

1/2008 to 5/2008

Supervised Consultant, Lansing, MI

Collaborators: Jessica Keeney and Karen DeShon

- Examined employee perceptions of new performance standards and feedback system in a medium-sized construction management company; designed, delivered and analyzed employee interview/survey data, delivered written/oral project results to company executives

Assessment Center Development/Construction/Implementation

5/2007 to 7/2007

Supervised Consultant, Kalamazoo, MI

Collaborators: Ann Marie Ryan and Paul Curran

May 2007 to July 2007

- Created one-time selection tool for Administrative Manager position in civil service agency; conducted job analysis, developed assessment center (in-basket task) and structured interview materials, and analyzed/scored selection measures

Mechanical Ability Test Development/Construction

8/2006 to 1/2008

Supervised Consultant, Lansing, MI

Collaborators: Ann Marie Ryan, Neal Schmitt, and Dave Waldschmidt

- Developed large-scale mechanical ability test for selection and training purposes; created test items, organized/evaluated sensitivity review, conducted pilot studies, performed item/test analyses, produced technical report

Technical Reports & Other Publications

Fernandez, R., & **Grand, J.A.** (2019). *Development of an integrated team training design and architecture to support adaptability in healthcare teams*. Annual report prepared for Defense Medical Research and Development Program (JPC-1) (W81XWH-15-1-0403), Fort Detrick, MD.

Kozlowski, S.W.J., Chao, G.T., Braun, M.T., **Grand, J.A.**, & Kuljanin, G. (2016). *A computational modeling approach to organizational effectiveness: Mapping the effects of leadership, group structure, and environmental shocks*. Annual report prepared for U. S. Army Research Institute for the Behavioral and Social Sciences (W911NF-14-1-0026), Fort Belvoir, VA.

Grand, J.A. & Conrad, M. (2014). *Interprofessional awareness student activity: Summaries, highlights, and interpretations*. Technical report prepared for The University of Akron College of Health Professions, Akron, OH.

Kozlowski, S.W.J., Chao, G.T., Braun, M.T., **Grand, J.A.**, Kuljanin, G., Pickhardt, D., & Mak, S. (2013). *Team knowledge: Origins, emergence, & measurement*. Annual report prepared for Office of Naval Research (N00014-09-1-0519), Arlington, VA.

Grand, J.A., Huang, J., & Ryan, A.M. (2010). *Summary report: Analysis of global assessment and interview evaluation system*. Technical report prepared for IBM Corporation, Dallas, TX.

Russell, T.L., Waters, S.D., **Grand, J.A.**, & Sellman, W.S. (2009). *Empirical studies of nonverbal reasoning tests: Construct validation, planning, and preparation*. Technical report prepared for Defense Manpower Data Center, Seaside, CA.

Grand, J.A. (2009). *Analysis report: Summary of 2008 CVM student survey data*. Technical report prepared for Michigan State University College of Veterinary Medicine, East Lansing, MI.

Grand, J.A. (2009). *Analysis report: Summary of goal-setting in The Christman Company*. Technical report prepared for The Christman Company, Lansing, MI.

Grand, J.A., & Fandre, J. (2008). *Employee perceptions of performance standards & feedback system: A justice perspective*. Technical report prepared for The Christman Company, Lansing, MI.

Grand, J.A., Ryan, A.M., & Schmitt, N. (2007). *Summary report: Preliminary pilot testing of Wonderlic Mechanical Aptitude Test*. Technical report prepared for Wonderlic, Inc., Libertyville, IL.

Invited Expert Advisory and Review Panels

[Advisory Panelist] Bond, W., Hui, J., Fernandez, R. (2017, May). *Catalyzing system change through healthcare simulation: Systems, competency, and outcomes.*

[Advisory Panelist] Yule, S. & Musson, D. (2016-2017). *Managing medical emergencies on deep space missions.*

[Review Panelist] Zalesny, M.D., Whitney, P.D., & White, A.M. (2016, March). *Modeling intent to use chemical/biological weapons.*

Professional Affiliations

Academy of Management (Organizational Behavior, Research Methods)

American Psychological Association

Interdisciplinary Network for Group Research

Society for Industrial/Organizational Psychology

Society for Simulation in Healthcare

Professional Services

Editorial Review Boards

Journal of Management	2020 to present
Journal of Applied Psychology	2017 to present
Journal of Business and Psychology	2013 to present

Reviewer for Funding Agencies

National Science Foundation (Science of Organizations)

Ad hoc Reviewer for Journals

Applied Psychology: An International Review
 Cognitive Systems Research
 European Journal of Work and Organizational Psychology
 Journal of Applied Psychology
 Journal of Business and Psychology
 Journal of Cognitive Engineering and Decision-Making
 Journal of Management
 Leadership Quarterly
 Organizational Research Methods
 Personnel Psychology
 Sex Roles: A Journal of Research
 Simulation & Gaming

Reviewer for Conferences

Interdisciplinary Network for Group Research
 Society for Industrial/Organizational Psychology

Professional Committees (C = chair, M = member)

SIOP Open Science and Practice Committee (C)	<i>2020 to present</i>
SIOP Committee for Advancement of Professional Ethics (M)	<i>2018 to 2020</i>
SIOP Scientific Affairs Committee (C)	<i>2016 to present</i>
SIOP Scientific Affairs Committee (M)	<i>2014 to 2016</i>
SIOP Science Advocacy Mentoring Program (C)	<i>2014 to 2016</i>

Departmental Services

Service Committees (UMD)

Open Science Committee	<i>2019 to present</i>
Faculty Search Committee (Developmental)	<i>2019 to present</i>
Psychology Space Committee	<i>2018 to present</i>
Psychology Faculty Workload Committee	<i>2016-2017</i>
Faculty Search Committee (Quantitative)	<i>2016</i>
SDOS Colloquium Series	<i>Ongoing</i>

Undergraduate Advising

Undergraduate research/teaching assistants (cumulative total): 25

Undergraduate honor's theses (chair or member): 1

Thesis/Dissertation Advising (C = chair, M = member)

Adam Factor (M)
 Rewina Bedemariam (M)
 Joshua Strauss (C)
 Hannah Samuelson (C)
 Benjamin Levine (C)
 Jason Hasbrouck (M)
 Jessica Fernandez (M)
 Yuqing Lei (M)
 Sara Barth (M)
 Jasmine Wheeler (M)
 Michelle Dugas (M)
 Marina Chernikova (M)
 Diane Brown (M)

Advisee Awards

Josh Strauss: Dean's Research Initiative grant (Award = \$2000)	<i>2020</i>
Hannah Samuelson: Dean's Research Initiative grant (Award = \$2000)	<i>2018</i>

Former Students

Hannah Samuelson (2019): Fors Marsh Group

Benjamin Levine (2019): Johnson & Johnson