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# Andrew B. Speer

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## ACADEMIC APPOINTMENTS

### Indiana University

2023-Current

- Kelley School of Business (2023)

### Wayne State University

2017-2023

- Psychology Associate Professor (2023)
- Psychology Assistant Professor (2017-2023)

## CURRENT GRANTS

- Army Research Institute - \$536,729 2023-2026
  - An investigation of scoring open-ended personality assessments within applicant contexts using natural language processing
- National Science Foundation - \$435,561 2023-2026
  - Generating biodata from scratch: Creating and validating a comprehensive collection of biodata items and scales

## PUBLICATIONS

\*Denotes Student Authorship via Mentorship

- 41. **Speer, A.B.**, \*Delacruz, A.Y., \*Wegmeyer, L.J., \*Perrotta, J. (in press). Meta analytical estimates of interrater reliability for direct supervisor performance ratings: Optimism under optimal measurement designs. *Journal of Applied Psychology*.
- 40. Kordsmeyer, T. L., **Speer, A.**, Kurz, R., Wilms, R., & Lanwehr, R. (conditional acceptance). Longitudinal effects of employees' Big Five personality traits on internal promotions differentiated by job level in a multinational company. *Journal of Business and Psychology*.
- 39. **Speer, A.B.**, \*Wegmeyer, L.J., \*Tenbrink, A.Y., Christiansen, N.D., & \*Salim, R.M. (2023). Comparing forced-choice and single-stimulus personality scores on a level playing field: A meta-analysis of psychometric properties and susceptibility to faking. *Journal of Applied Psychology*.
- 38. Yankov, G., & **Speer, A.B.** (in press). Comparing three machine learning algorithms for scoring assessment center text data. *Personnel Psychology*.  
This composite article includes three separate studies that were each evaluated individually in the traditional peer-review process, accepted independently, and combined into the thematic article.
- 37. **Speer, A.B.**, \*Perrotta, J., \*Tenbrink, A.P., \*Wegmeyer, L., \*Delacruz, A.Y., & \*Bowker, J. (2023). Turning words into numbers: Assessing work attitudes using natural language processing. *Journal of Applied Psychology*.
- 36. **Speer, A.B.**, \*Perrotta, J., Jacobs, R. (2023). Supervised construct scoring to reduce

personality assessment length: A Field study and introduction to The Short 10.

*Organizational Research Methods*.

- 35. **Speer, A.B.**, \*Tenbrink, A.P., \*Wegmeyer, L.J., & \*Sendra, C.C (2023). Saved by the biodata: Meta-analytic relationships between biodata scores and student success. *Journal of Vocational Behavior*.
- 34. \*Wegmeyer, L.J., & **Speer, A.B.** (2023). Examining personality testing in selection for neurodiverse individuals. *Industrial and Organizational Psychology: Perspectives on Science & Practice*.
- 33. \*Delacruz, A. Y., & **Speer, A. B.** (2023). Maternal Wall Biases and The Maybe Baby Effect. *Industrial and Organizational Psychology: Perspectives on Science & Practice*.
- 32. \*Wegmeyer, L.J., & **Speer, A.B.** (2022). Understanding, detecting, and deterring faking on interest inventories. *International Journal of Selection and Assessment*. Online advance.
- 31. **Speer, A.B.**, \*Wegmeyer, L.J., & \*Delacruz, A.Y. (2022). Factors leading to interview question decisions: Introducing the model of interviewer question preferences. *International Journal of Selection and Assessment*, 30, 392-410.
- 30. \*Wegmeyer, L.J., \*Tenbrink, A.P., \*Delacruz, A.Y., \*Salim, R., & **Speer, A.B.** (2022). Interviews from scratch: Individual differences in writing interview questions. *Personnel Assessment & Decisions*, 8, 15-23.
- 29. Brown, M.I., **Speer, A.B.**, \*Tenbrink, A.P., & Chabris, C.F. (2022). Using game-like animations of geometric shapes to simulate social interactions: An evaluation of group score differences. *International Journal of Selection and Assessment*.
- 28. \*Tenbrink, A.P., & **Speer, A.B.** (2022). Accountability during performance appraisals: The development and validation of the rater accountability scale. *Human Performance*.
- 27. **Speer, A.B.**, \*Tenbrink, A.P., \*Wegmeyer, L.J., \*Reich, C., \*Shihadeh, M., &.... (2022). Meta-analysis of biodata in employment settings: Providing clarity to criterion and construct-related validity estimates. *Journal of Applied Psychology*.
- 26. **Speer, A.B.**, Christiansen, N.D., Robie, C., & Jacobs, R. (2022). Measurement specificity with modern methods: Using dimensions, facets, and items from personality assessments to predict performance. *Journal of Applied Psychology*.
- 25. **Speer, A.B.**, & \*Delacruz, A. (2021) Introducing a supervised alternative to forced-choice personality scoring: A test of validity and resistance to faking. *International Journal of Selection and Assessment*, 29, 448-466.
- 24. **Speer, A.B.** (2021). Empirical attrition modeling and discrimination: Balancing validity and group differences. *Human Resources Management Journal*.
- 23. Robie, C., Risavy, S.D., Jacobs, R.R., Christiansen, N.D., Konig, C.J., & **Speer, A.B.** (2021). An updated survey of beliefs and practices related to faking in individual assessments. *International Journal of Selection and Assessment*, 29, 503-509
- 22. Christiansen, N.D., Robie, C., Burns, G.N., \*Loy, R.W., **Speer, A.B.**, & Jacobs, R. (2021). Effects of applicant response distortion on the relationship between personality trait scores and cognitive ability. *Personality and Individual Differences*, 171.
- 21. **Speer, A.B.** (2020). Scoring dimension-level job performance from narrative comments: Validity and generalizability when using natural language processing. *Organizational Research Methods*, 24, 572-594.

- **20. Speer, A.B.**, Tenbrink, A.P., \*Schwendeman, M.G., & \*Wegmeyer, L.J. (2020). Individual differences in effective interview design: Factors affecting question choice. *International Journal of Selection and Assessment*.
- **19. Speer, A.B.**, \*Tenbrink, A.P., & \*Schwendeman, M.G. (2020). Creation and validation of the performance appraisal motivation scale (PAMS). *Human Performance*.
- **18. Speer, A.B.**, Prewett, M.S., & \*Siver, S.R. (2020). Frequency and effects of performance appraisal training in applied settings. *International Journal of Selection and Assessment*, 28, 209-214.
- **17. Speer, A.B.** (2020). Judging performance: General mental ability and the accuracy of operational performance ratings. *Journal of Personnel Psychology*.
- **16. Speer, A.B.**, \*Siver, S.R., & Christiansen, N.D. (2019). Applying theory to the black box: A model for empirically scoring biodata. *International Journal of Selection and Assessment*, 28, 68-84.
- **15. Speer, A.B.**, Dutta, S., Chen, M., & Trussell, G. (2019). Here to stay or go? Connecting turnover research to applied attrition modeling. *Industrial and Organizational Psychology: Perspectives on Science & Practice*, 12, 277-301.
- **14. Speer, A.B.**, \*Tenbrink, A., & \*Schwendeman, M. (2019). Let's talk it out: The effects of calibration meetings on the accuracy of performance ratings. *Human Performance*, 32, 107-128.
- **13. Speer, A.B.**, Christiansen, N.D., \*Laginess, A. (2019). Social intelligence and interview accuracy: Individual differences in the ability to construct interviews and rate accurately. *International Journal of Selection & Assessment*, 27, 104-128.
- **12. \*Fisher, P.**, Robie, C., Christiansen, N.D., **Speer, A.B.**, & Schneider, L. (2019). Criterion-related validity of forced-choice personality measures: A cautionary note regarding Thurstonian IRT versus classical test theory scoring. *Personnel Assessment & Decisions*.
- **11. Speer, A.B.**, \*Schwendeman, M., \*Reich, C.C., \*Tenbrink, A.P., & \*Siver, S.R. (2018). Investigating the construct validity of performance comments: Creation of the Great Eight Narrative Dictionary. *Journal of Business & Psychology*.
- **10. Speer, A.B.** (2018). Quantifying with words: An investigation of the validity of narrative-derived performance scores. *Personnel Psychology*, 71, 299-333.
- **9. Christiansen, N.D.**, & **Speer, A.B.** (2017). Putting situations into personality assessments: Problems and potential. *European Journal of Psychology*, 31, 443-445.
- **8. Christiansen, N.D.**, Robie, C., Burns, G.N., & **Speer, A.B.** (2017). Using item-level covariance to detect response distortion on personality measures. *Human Performance*, 30, 116-134.
- **7. Speer, A.B.**, Robie, C., & Christiansen, N.D. (2016). Effects of item type and estimation method on the accuracy of estimated personality trait scores: Polytomous item response theory models versus summated scoring. *Personality and Individual Differences*, 102, 41-45.
- **6. Speer, A.B.**, King, B.S., & Grossenbacher, M. (2016). Applicant reactions as a function of test length: Is there reason to fret over using longer tests. *Journal of Personnel Psychology*, 15, 15-24.
- **5. Speer, A.B.**, Christiansen, N.D., & Honts, C. (2015). Assessment of personality through behavioral observations in work simulations. *Personnel Assessment and Decisions*, 1, 43-56.

- 4. Love, K.G., **Speer, A.B.**, & Buschlen, E. (2015). The impact of university culture on unionized faculty intention to strike: Antecedents and factors beyond financial gain. *Journal of Higher Education Management*, 30, 34-50.
- 3. **Speer, A.B.**, Christiansen, N.D., Goffin, R.D., & Goff, M. (2014). Situational bandwidth and the criterion-related validity of assessment center ratings: Is cross-exercise convergence always desirable. *Journal of Applied Psychology*, 99, 282-295.
- 2. **Speer, A.B.**, Christiansen, N.D., Melchers, K.G., König, C.J., & Kleinmann, M. (2014). Establishing the cross-situational convergence of the ability to identify criteria: Consistency and prediction across similar and dissimilar assessment center exercises. *Human Performance*, 27, 44-60.
- 1. Christiansen, N.D., Hoffman, B.J., Lievens, F., & **Speer, A.B.** (2013). Assessment centers and the measurement of personality. In Tett, R.P., & Christiansen, N.D. (Eds.), *The Handbook of Personality at Work*. Taylor & Francis/Psychology Press: New York, NY, 477-497.

### CONFERENCE PRESENTATIONS

- Academy of Management Annual Conference, Seattle, WA (Symposium) **2022**
  - Factors leading to interview question decisions: Introducing the model of interviewer question preferences
- Society for I/O Psychology Annual Conference, Seattle, WA (Symposium) **2022**
  - Comparing forced-choice and single-stimulus personality scores on a level playing field: A meta-analysis of psychometric properties and susceptibility to faking
- Society for I/O Psychology Annual Conference, Seattle, WA (Symposium) **2022**
  - Understanding, detecting, and deterring faking on interest inventories
- Society for I/O Psychology Annual Conference, Seattle, WA (Symposium) **2022**
  - Turning words into numbers: Assessing work attitudes using natural language processing
- Society for I/O Psychology Annual Conference, Seattle, WA (Poster) **2022**
  - Supervised construct scoring to reduce personality assessment length: A Field study and introduction to The Short 10
- Society for I/O Psychology Annual Conference, Covid Online (Symposium) **2021**
  - “*Meta-Analysis of Biodata at Work: Criterion & Construct Validity Estimates*”
- Society for I/O Psychology Annual Conference, Covid Online (Symposium) **2021**
  - “*Group Differences in Biographical Data: A Meta-Analysis*”
- Society for I/O Psychology Annual Conference, Covid Online (Symposium) **2021**
  - “*Interviews from Scratch: Individual Differences in Writing Interview Questions*”
- Society for I/O Psychology Annual Conference, Covid Online (Symposium) **2021**
  - “*ML and AI in Personnel Selection: A Call to Practitioners and Academics*”
- Society for I/O Psychology Annual Conference, Covid Online (Symposium) **2021**
  - “*Examining Optimal Personality Measurement Specificity using Modern Prediction*”
- Society for I/O Psychology Annual Conference, Covid Online (Symposium) **2021**
  - “*NLP for Assessment Centers: Predicting Candidates’ Competency Ratings from Assessors’ Comments*”
- Society for I/O Psychology Annual Conference, Covid Online (Symposium) **2020**
  - “*The Development and Validation of the Rater Accountability Scale*”
- Society for I/O Psychology Annual Conference, Covid Online (Symposium) **2020**

- *“Scoring Job Performance Dimensions from Narrative Comments: Validity and Boundary Conditions”*
- Society for I/O Psychology Annual Conference, Covid Online (Poster) **2020**
  - *“Individual Differences in Interview Design: Factors Affecting Question Choice”*
- Association for Psychological Science Conference, Washington, DC (Invited Talk) **2019**
  - *“Big Data in I-O Psychology”*
- Society for I/O Psychology Annual Conference, N. Harbor, MD (Symposium) **2019**
  - *“Investigating the Construct Validity of Performance Comments: Creation of the Great Eight Narrative Dictionary”*
- Society for I/O Psychology Annual Conference, N. Harbor, MD (Symposium) **2019**
  - *“Creation and Validation of the Performance Appraisal Motivation Scale (PAMS)”*
- Society for I/O Psychology Annual Conference, Chicago, IL (Symposium) **2018**
  - *“Quantifying with words: Validity of narrative-derived performance scores”*
- Society for I/O Psychology Annual Conference, Chicago, IL (Poster) **2018**
  - *“Applying theory to the black box: A theoretical model of empirically scoring biodata”*
- Society for I/O Psychology Annual Conference, Chicago, IL (Poster) **2018**
  - *“Let’s talk it out: The effects of calibration meetings on the accuracy of performance ratings”*
- Society for I/O Psychology Annual Conference, Chicago, IL (Symposium) **2018**
  - *“Using situational similarity in personality assessment to enhance validity”*
- Society for I/O Psychology Annual Conference, Philadelphia, PA (Symposium) **2015**
  - *“Using Situational Judgment Tests for the Assessment of Social Intelligence”*
- Society for I/O Psychology Annual Conference, Philadelphia, PA (Symposium) **2015**
  - *“Big Data at Sprint: Front-line Employee Insights”*
- Society for I/O Psychology Annual Conference, Philadelphia, PA (Poster) **2015**
  - *“Identifying Deferent Employees: Considerations When Writing Situational Judgment Items”*
- Society for I/O Psychology Annual Conference, Honolulu, HI (Symposium) **2014**
  - *“Interviewer Judgment Accuracy and Question Choice: Effects of Social Intelligence”*
- Society for I/O Psychology Annual Conference, Honolulu, HI (Poster) **2014**
  - *“Effects of Item Type and Estimation Method on Scale Validity”*
- Society for I/O Psychology Annual Conference, Houston, TX (Symposium) **2013**
  - *“Response Biases in Personality Scores of Job Incumbents: Effects on Criterion-Related Validity”*
- Society for I/O Psychology Annual Conference, Houston, TX (Symposium) **2013**
  - *“More than Just Money: The Effect of Perceived Organizational Culture on Intentions to Strike and Engagement During a Period of Labor Unrest”*
- Society for I/O Psychology Annual Conference, Houston, TX (Poster) **2013**
  - *“Applicant Reactions as a Function of Test Length: Does it Matter?”*
- Society for I/O Psychology Annual Conference, San Diego, CA (Symposium) **2012**
  - *“Assessment Center Construct-Criterion Relationship: Situational Bandwidth and Predicting Job Performance”*
- Society for I/O Psychology Annual Conference, San Diego, CA (Poster) **2012**
  - *“Assessment of Personality through Behavior in Assessment Center Exercises”*
- Society for I/O Psychology Annual Conference, San Diego, CA (Poster) **2012**

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- *“Trait and Performance-Based Social Aptitude Factors and Relationships with Personality”*
- Society for I/O Psychology Annual Conference, Atlanta, GA (Poster) **2010**
  - *“Effect of Supervisors’ Personality on Evaluations of Subordinate Effectiveness”*

## **EDUCATION**

**Ph.D. Industrial/Organizational Psychology** **2009 - 2013**  
Central Michigan University

## **NON-ACADEMIC PROFESSIONAL EXPERIENCE**

**Organizational Consultant – Speer Consulting Group LLC** **2012 - 2023**

- Engages in various consulting opportunities involving employee selection (e.g., assessment development), performance management (e.g., 360's), people analytics (e.g., attrition modeling), and third-party consultant with organizations (e.g., bias audits).
- Operated as Speer Consulting Group LLC (since 2020)

**HR Analytics & Metrics Manager – American Family Insurance** **2015 - 2017**  
Madison, WI

- Promoted from Workforce Analytics Consultant in 2016
- Managed a unit of seven employees responsible for HR reporting and advanced analytics projects regarding people talent. Dealt with various organizational stakeholders regarding a variety of human capital needs (e.g., employee selection, leader identification, diversity, high potential identification, success management, performance measurement, survey construction, turnover prediction, program evaluation).
- Led company-wide research effort spanning over 1000 employees to identify predictors of leader emergence and effectiveness at American Family Insurance.
- Frequently presented complex analyses to business stakeholders, ranging from HR staff to directors, vice presidents, strategic leadership team, CEO, and board of directors.

**Senior Optimization & Analytics Consultant –CEB/SHL** **2013 –2015**  
Minneapolis, MN

- Promoted from Optimization & Analytics Consultant in 2015.
- Helped companies drive efficiency by engaging in human capital consulting. Provided thought leadership to human resources executives and engaged in a variety of tasks to improve the quality and predictiveness of pre-employment assessments used by organizations. Developed pre-employment assessments for organizations to hire applicants, engaged in project management for criterion-related validation studies, and acted as lead technical expert for consulting projects. Designed strategy for go-to-market consulting practices for optimization services.

**Associate Consultant – CEB/SHL** **2012-2013**  
Remote Work

- Performed a variety of tasks to facilitate employee selection for external clients as a contractor for CEB/SHL. Tasks included content validation, data analysis, competency mapping, evaluating hiring assessments for quality and legal support, conducting client focus groups, developing job analysis questionnaires, analyzing job analysis results, writing job analysis reports, and recommending hiring solutions for clients.

**MISCELLANEOUS****Journal & Editorial Activity**

- Journal of Applied Psychology: Editorial Board **2023-current**
- Journal of Applied Psychology: Reviewer **2020-2023**
- Psychology Today **2023-current**
  - Blog - HR for Tomorrow: Steering Tomorrow's Talent with Today's Research
- Personnel Psychology **2020-2023**
  - Reviewer for Special Edition: Applying Machine Learning and Artificial Intelligence to Personnel Selection
- Organizational Research Methods: Reviewer **2020-current**
- Personnel and Assessment Decisions: Reviewer **2021-current**
- International Journal of Selection & Assessment: Reviewer **2018-current**
- Advances in Methods and Practices in Psychology Science: Reviewer **2020**
- Psychology of Violence: Reviewer **2018**
- Society for Industrial & Organizational Psychology: Reviewer **2013-current**
- Bray Howard Grant Subcommittee Reviewer **2020-2021**
- Bray Howard Grant Committee Chair **2022-2023**

**Service**

- Kelley Department Research Seminar Series Committee **2023-current**
- Survey Warrior Educational Engagement and Transformation Development **2020-2021**
- Psychology Salary & Promotion Committee **2020-2022**
- Psychology Graduate Committee **2022-2023**
- Psychology Undergraduate Committee **2018-2020**
- Psychology Measurement Committee **2017-2023**
- Applied Psychology Research Organization Group Supervisor **2018-2023**
- Psychology Development Hire Search Committee **2018-2019**
- Psychology IO Psych Hire Search Committee **2022-2022**
- Steven A. Lewis Award reviewer **2018-2020**
- Judge of Psychology Graduate Student Poster Day **2017-2020**

**Previous Grants and Awards**

- SIOP Small Grant Award - \$9,420 **2020-2022**
  - *“Turning Words into Numbers: Development and Validation of Work Attitude and Perception Algorithms”*
- Wayne State University Research Grant Program - \$10,000 **2019**
  - *“Quantifying Performance with Words: Advancing Theory & Practice”*
- All4One American Family Insurance Top 100 Employee **2016**
- Central Michigan University Dissertation Research Award **2012**
- Central Michigan University I/O Psychology Summer Research Stipend **2012**
- Central Michigan University Graduate Research & Creative Endeavors Grant **2011**
- Central Michigan University IO Psychology Fellowship **2009-2011**

**Professional Membership**

- Society for Industrial and Organizational Psychology
- Academy of Management

### **Courses Taught**

- 540 HR Analytics: current
- 340 Introduction to Human Resources: current
- 2100 Psychology in the Workplace: 2018-2023
- 6535 Psychometric Theory: 2018-2023
- 7160 Psychometric Theory and Factor Analysis: 2018-2023
- 7510 Criterion Development & Performance Evaluation: 2018-2023
- CARMA Predictive Modeling and Machine Learning in R: 2022
- 7520 Principles in Dev and Evaluation of Employee Selection Proc: 2017-2022
- 8500 Big Data in Organizational Research Methods: 2021
- 337 The Psychology of Advertising: 2012-2013
- 285 Research Methods: 2012

### **Statistical and Programming Background**

- Proficient in correlational, regression-based, and generalized linear model analyses. Proficient in structural equation modeling, hierarchical linear modeling, predictive analytics, and other broad statistical strategies. Proficient in psychometrics, testing, and measurement using classical test theory as well as item response theory. Proficient in natural language processing. Proficient in machine learning, including penalized regression, tree-based models, and deep neural networks.
- Proficient in e.g., Microsoft Word programs, R, Python, SPSS, SAS, Lisrel, HLM, SQL, Peoplesoft, Workday, and Tableau.