

# Michael W. Asher

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## Education

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- Ph.D.**      **University of Wisconsin-Madison**, Psychology, 2023  
Advisor: Judith Harackiewicz
- M.S.**      **University of Wisconsin-Madison**, Psychology, 2019
- M.S.**      **Hunter College**, Education (Certified for Grades 7-12 in New York State), 2015
- B.A.**      **Duke University**, Psychology, 2013

## Academic Appointments

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- 2025 - Present      **Project Scientist**, Human-Computer Interaction Institute, Carnegie Mellon University
- 2023 - 2025      **Postdoctoral Fellow**, Human-Computer Interaction Institute, Carnegie Mellon University

## Awards and Fellowships

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- 2023      UW-Psychology Award for Outstanding Teaching Service to the Department (\$1,500)
- 2017 - 2020      Research Fellowship, Institute for Education Sciences Interdisciplinary Training Program, UW-Madison (\$178,000)
- 2013 - 2015      AmeriCorps Education Award (\$10,000)
- 2009 – 2013      Angier B. Duke Merit Scholarship, Duke University (\$200,000)

## Publications

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### Journal Articles

- Asher, M. W.**, Hecht, C. A., Harackiewicz, J. M., Curtin, J. J., Parrisius, C., & Nagengast, B. (2025). Why elusive expectancy × value interactions may be critical for theory and intervention: A simulated power analysis. *Motivation Science*.  
<https://doi.org/10.1037/mot0000394>

- Asher, M. W.**, Sana, F., Koedinger, K. R., Carvalho, P. F. (2025). Practice with feedback vs. lecture: Consequences for learning, efficiency, and motivation. *Journal of Applied Research in Memory and Cognition*. <https://doi.org/10.31234/osf.io/kft8u>
- Asher, M. W.**, & Harackiewicz, J. M. (2024). Using utility value and choice to promote interest in statistics: Effects on initial and deeper phases of interest development. *Journal of Educational Psychology*. <https://doi.org/10.1037/edu0000921>
- Huang, Y., Dang, S., Elizabeth Richey, J., Chhabra, P., Thomas, D. R., **Asher, M. W.**, Lobczowski, N. G., McLaughlin, E. A., Harackiewicz, J. M., Aleven, V., & Koedinger, K. R. (2023). Using latent variable models to make gaming-the-system detection robust to context variations. *User Modeling and User-Adapted Interaction*, 33(5), 1211–1257. <https://doi.org/10.1007/s11257-023-09362-1>
- Harackiewicz, J. M., Hecht, C. A., **Asher, M. W.**, Beymer, P. N., Lamont, L. B., Else-Quest, N. M., Priniski, S. J., Smith, J. L., Hyde, J. S., & Thoman, D. B. (2023). A prosocial value intervention in gateway STEM courses. *Journal of Personality and Social Psychology*. <https://doi.org/10.1037/pspa0000356>
- Asher, M. W.**, Harackiewicz, J. M., Beymer, P. N., Hecht, C. A., Lamont, L. B., Else-Quest, N. M., Priniski, S. J., Thoman, D. B., Hyde, J. S., & Smith, J. L. (2023). Utility-value intervention promotes persistence and diversity in STEM. *Proceedings of the National Academy of Sciences*. <https://doi.org/10.1073/pnas.2300463120>
- French, A. M., Else-Quest, N. M., **Asher, M. W.**, Thoman, D. B., Smith, J. L., Hyde, J. S., & Harackiewicz, J. M. (2023). An intersectional application of expectancy-value theory in an undergraduate chemistry course. *Psychology of Women Quarterly*. <https://doi.org/10.1177/03616843231153390>
- Harackiewicz, J. M., & **Asher, M. W.** (2023). The utility value of a broad, comprehensive theory of motivation. *Motivation Science*, 9(1), 13–14. <https://psycnet.apa.org/doi/10.1037/mot0000279>
- Rosenzweig, E. Q., Hecht, C. A., Priniski, S. J., Canning, E. A., **Asher, M. W.**, Tibbetts, Y., Hyde, J. S., & Harackiewicz, J. M. (2021). Inside the STEM pipeline: Changes in students' biomedical career plans across the college years. *Science Advances*, 7(18). <https://doi.org/10.1126/sciadv.abe0985>
- Rosenzweig, E. Q., Harackiewicz, J. M., Hecht, C. A., Priniski, S. J., Canning, E. A., Tibbetts, Y., **Asher, M. W.**, & Hyde, J. S. (2021). College students' reasons for leaving biomedical fields: Disenchantment with biomedicine or attraction to other fields? *Journal of Educational Psychology*, 113, 351–369. <https://doi.org/10.1037/edu0000456>
- Toner, K., Leary, M. R., **Asher, M. W.**, & Jongman-Sereno, K. P. (2013). Feeling superior is a bipartisan issue: Extremity (not direction) of political views predicts perceived belief superiority. *Psychological Science*, 24, 2454–2462. <https://doi.org/10.1177/0956797613494848>

## Preprints/Under Review

**Asher, M. W.**, Hartman, J. D., Blaser, M., Eichler, J., Carvalho, P. F. (under review). The promise of mastery-based testing for promoting student engagement, self-regulated learning, and performance in gateway STEM courses. <https://doi.org/10.31219/osf.io/5j84t>

**Asher, M. W.**, Kwon, C., Carvalho, P. F., Ogan, A. (under review). Student retention strategies in distance education: Evaluating a paywall and scholarships in a Ugandan mobile learning course.

Carvalho, P., F., **Asher, M. W.**, Sana, F., Koedinger, K. R. (under review). Skip the reading assignment: Effective and efficient learning with only practice and feedback.

## Peer-Reviewed Conference Proceedings

**Asher, M. W.**, Kwon, C., Stamper, J., Ogan, A., & Carvalho, P. F. (in press). Validating a new approach for measuring student engagement in remote, low-infrastructure learning environments. *Proceedings of the 2025 ACM Conference on Learning at Scale*. <https://doi.org/10.1145/3698205.3729556>

**Asher, M. W.**, Sana, F., Koedinger K. R., Carvalho, P. F. (2024). Students Can Learn More Efficiently When Lectures Are Replaced with Practice Opportunities and Feedback. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 46. <https://escholarship.org/uc/item/7p16r9xk>

Huang, Y., Lobczowski, N. G., Richey, J. E., McLaughlin, E. A., **Asher, M. W.**, Harackiewicz, J. M., Aleven, V., & Koedinger, K. R. (2021). A general multi-method approach to data-driven redesign of tutoring systems. *LAK21: 11th International Learning Analytics and Knowledge Conference*, 161–172. <https://doi.org/10.1145/3448139.3448155>

## Book Chapters

**Asher, M. W.**, Harackiewicz, J.M. (in press). Personalizing to promote relevance. In M. L. Bernacki, & C. Walkington (Eds.), *Handbook of personalized learning (Part II)*. New York, NY: Routledge.

Lobczowski, N. G., **Asher, M. W.**, Richey, J. E., Huang, Y., Hecht, C., Bhardwaj, S., Aleven, V., Koedinger, K., & Harackiewicz, J. (2022). Designing a motivation intervention for students learning algebra online. In M. J. Spector, B.B. Lockee, B. B., & M. D. Childress (Eds.), *Learning, design, and technology* (pp. 1–34). Springer International Publishing. [https://doi.org/10.1007/978-3-319-17727-4\\_185-1](https://doi.org/10.1007/978-3-319-17727-4_185-1)

## Conference Presentations

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**Asher, M. W.**, Carvalho, P. F., Murphy, A., Norberg, K., Fancsali, S. E., Koedinger, K. R., & Harackiewicz, J. M. (2025, April). *Causes of heterogeneity in a nationwide, online*

*utility value intervention*. Paper presented at the 2025 Annual Meeting of the American Educational Research Association, Denver, CO.

**Asher, M. W.**, Sana, F., Koedinger K. R., Carvalho, P. F. (2024, November). *Practice with Feedback vs. Lecture: Consequences for Learning, Efficiency, and Motivation*. Paper to be presented at the 2024 Annual Meeting of the Psychonomic Society, New York, NY.

**Asher, M. W.**, Sana, F., Koedinger K. R., Carvalho, P. F. (2024, July). *Students can learn more efficiently when lectures are replaced with practice opportunities and feedback*. Poster presented at the 2024 Annual Meeting of the Cognitive Science Society, Rotterdam, Netherlands.

**Asher, M. W.**, Murphy, A., Ritter, S., Fancsali, S. E., Koedinger K. R., Harackiewicz J. M. (2024, April). *Effects of a utility value intervention in an online math tutor*. Paper presented at the 2024 Annual Meeting of the American Educational Research Association, Philadelphia, PA.

**Asher, M. W.**, & Harackiewicz, J. M. (2023, April). *Using utility value information and choice to promote interest in STEM: Effects and mechanisms*. Poster Presented at the 2023 Annual Meeting of the American Educational Research Association, Chicago, IL.

**Asher, M. W.**, Harackiewicz, J. M. (2022, July). *Long term effects of utility value interventions in introductory chemistry*. Paper presented at the 2022 Gender & STEM conference. Munich, Germany.

**Asher, M. W.**, Murphy, A., Ritter, S., Fancsali, S., Pavelko, M., McLaughlin, E. A., Chine, D. R., Chhabra, P., Lobczowski, N. G., Aleven, V., Koedinger, K. R., Harackiewicz, J. M. (2022, July). *Designing and evaluating a utility value intervention for an online algebra tutor*. Poster presented at the 2022 Gender & STEM conference. Munich, Germany.

Lobczowski, N. G., Richey, J. E., **Asher, M. W.**, Harackiewicz, J. M., & Koedinger, K. (2021, May). *Students' use of math in different contexts: An exploration of responses to a utility-value intervention*. Paper presented at the 2021 Annual Meeting of the American Educational Research Association. Virtual.

**Asher, M. W.**, Lobczowski, N. G., Richey, J. E., Hecht, C. A., Huang, Y., Aleven, V., Koedinger, K., & Harackiewicz, J. M. (2020, August). *Designing a Utility-value Intervention for Students Learning Algebra Online*. Paper was to be presented at 2020 EARLI Sig 8 and Sig 16 Joint Conference on Motivation/Emotion and Metacognition. Dresden, Germany (Conference cancelled due to COVID-19).

**Asher, M. W.**, Rosenzweig, E.Q., & Harackiewicz, J.M. (2020, May). *Success is subjective: Progress reflection may increase students' perceived competence as they learn math*. Poster was to be presented at the 2020 Association for Psychological Science Annual Meeting. Chicago, IL (Conference Canceled due to COVID-19).

Rosenzweig, E. Q., Harackiewicz, J.M., Hecht, C., Priniski, S. J. & **Asher, M. W.** (2020, April). *Pushed out or pulled away: College students' reasons for leaving biomedical fields*. Paper was to be presented at the 2020 Annual Meeting of the American

Education Research Association. San Francisco, CA (Conference Canceled due to COVID-19).

**Asher, M. W.**, Rosenzweig, E.Q. & Harackiewicz, J.M. (2020, April). *Using self-persuasion to increase perceived competence*. Paper was to be presented at the 2020 Annual Meeting of the American Education Research Association. San Francisco, CA (Conference Canceled due to COVID-19).

**Asher, M. W.**, Rosenzweig, E. Q., & Harackiewicz, J. M. (2020, February). *Using self-persuasion to increase perceived competence*. Poster presented at the 2020 Annual Meeting of the Society for Personality and Social Psychology. New Orleans, LA.

**Asher, M. W.**, Hecht, C. A., & Harackiewicz, J.M. (2019, April). *Can a utility value intervention improve outcomes for women in math?* Poster presented at the 2019 Annual Meeting of the American Education Research Association. Toronto, ON.

**Asher, M. W.**, Hecht, C.A., & Harackiewicz, J.M. (2019, February). *Can a utility value intervention improve outcomes for women in math?* Data Blitz presented at the 2019 Annual Meeting of the Society for Personality and Social Psychology. Portland, OR.

Hecht, C. A., Priniski, S. J., Hall, G. J., **Asher, M. W.**, Tibbetts, Y., Harackiewicz, J. M. (2019, April). *Customizing a social-belonging intervention for two-year college students*. Poster presented at the 2019 Annual Meeting for the American Educational Research Association. Toronto, Canada.

Rosenzweig, E. Q., Harackiewicz, J. M., Priniski, S. J., Hecht, C. A., & **Asher, M. W.** (2019, February). *Using choices to enhance the effectiveness of utility-value interventions*. Poster presented at the 2019 Annual Meeting of the Society of Personality and Social Psychology. Portland, OR.

**Asher, M. W.**, Lattanner, M.R., & Richman, L.S. (2013, April). *The effects of power on the comprehension of medical instructions*. Poster presented at Duke University's Graduation with Distinction Symposium. Durham, NC.

Lattanner, M.R., **Asher, M. W.**, & Richman, L.S. (2013, January). *Effect of low power on reading comprehension*. Poster presented at the 2013 Annual Meeting of the Society for Personality and Social Psychology. New Orleans, LA.

Horvath, S., & **Asher, M.W.** (2012, January). *Waiting for revenge, power, excitement, and admiration: The influence of narcissism, gender, and relevance on delay discounting*. Poster presented at the 2012 Annual Meeting of the Society for Personality and Social Psychology. San Diego, CA.

## Teaching

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### University of Wisconsin-Madison

2023

**Instructor of Record: Statistics for the Behavioral Sciences II, Psychology 710.** A graduate level statistics course, required for second-semester psychology Ph.D. students and for students enrolled in a "Data Science in Human Behavior"

master's degree program. Topics included power analysis, analysis of non-independent data, by-subject and by-item random effects structures, contrast coding and analysis, and generalized linear models.

- 2021 **Graduate Teaching Assistant: Statistics for the Behavioral Sciences II, Psychology 710.** See above for course description.
- 2020 **Graduate Teaching Assistant: Statistics for the Behavioral Sciences I, Psychology 610.** A graduate level statistics course, required for first-semester psychology Ph.D. students. Topics for the course included multiple regression, mediation, moderation, reliability, and validity.
- 2019, 2020 **Graduate Teaching Assistant: Social Psychology, Psychology 456.** An undergraduate survey course, introducing major theories and research in the field of social psychology.
- 2018 - 2023 **Lab Group Leader: Motivation Research, Psychology 621.** An undergraduate research course. Topics included developing and conducting randomized laboratory experiments.

### **Mott Hall V High School, Bronx, New York City Dept. of Education**

- 2013 - 2017 **Teacher: High School Mathematics and Advanced Placement Psychology.** Tenured by the New York City Department of Education in 2016. Taught AP Psychology, Geometry, Algebra II/Trigonometry, Computer Science, and a problem-solving math class to students with and without learning disabilities. Taught Algebra to students in self-contained special education classrooms.

### **Teach for America**

- 2013 - 2015 **Corps Member.** Participated in summer training program to develop teaching skills and knowledge; participated in ongoing professional development during first two years teaching at Mott Hall V High School.

### **Undergraduate Honors Thesis Mentoring**

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- 2022 - 2023 **Taiming Xue.** "The Role of Prosocial Values in Undergraduate Students' Academic and Career Choices in STEM"
- 2020 - 2021 **Ruofan Li.** "Re-examining Different Measures of Socioeconomic Status and Their Effects on College Students' Academic Experiences"
- 2020 - 2021 **Kierin Barnett.** "Promoting Perceived Usefulness in Statistics: An Online Laboratory Study"
- 2020 - 2021 **Luke Rutten.** "Measuring and Affecting Disengagement in a Virtual Tutor"

2019 - 2020 **Aaron Barenbaum.** "Investigating the Social Factors that Influence Office Hours Attendance"

2019 - 2020 **Craig Lundeen.** "Linguistic Analysis of a Prosocial Utility Value Intervention"

## Service and Participation in Departmental and University Life

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- 2024            Mentor: LearnLab Summer School, Educational Data Mining Track, Carnegie Mellon University
- 2024            Mentor: NSF Research Experiences for Undergraduates (REU) Program, Carnegie Mellon University
- 2019 - 2022    Graduate student representative: Board of Visitors, UW-Madison Psychology Department.

**Ad Hoc Journal and Conference Reviewer:** *Perspectives on Psychological Science; Learning and Instruction; Motivation Science; Educational Psychology Review; Journal of Educational Psychology; Contemporary Educational Psychology; Journal for STEM Education Research; Journal of Chemical Education; Cognitive Science Society (CogSci); Artificial Intelligence in Education (AIED); American Educational Research Association (AERA)*

**Grant Reviewer:** *National Science Foundation (ad hoc, 2024; panel, 2025)*

### Invited On-Campus Presentations

- “Communicating the Usefulness of Algebra, at Scale, in an Online Math Tutor” (2023, December). Presented for the Learning Science and Engineering Seminar Series, Carnegie Mellon University.
- “Effects of a Utility Value Intervention in Chemistry 103: An Update 4.5 Years Later?” (2023, March). Presented for “Teacher’s Tea” in the Chemistry Department, UW-Madison.
- “Can utility value interventions in chemistry improve persistence and promote diversity in STEM fields?” (2023, March). Presented for the Interdisciplinary Training Program’s Seminar Series, UW-Madison.
- “Can utility value interventions in chemistry improve persistence and promote diversity in STEM fields?” (2022, November). Presented for the Social Area Brown Bag Series, UW-Madison.
- “Are elusive interactions important? Simulation studies of expectancy x value interactions, with implications for theory and intervention” (2022, April). Presented for the Social Area Brown Bag Series, UW-Madison.
- “Creating an engaging conference poster” (2022, January; 2021, February). Presented for Psychology 686: Senior Thesis Seminar in Psychology, UW-Madison.



## Technical Skills and Coursework in Research Methods and Statistics

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**Statistical Methods:** regression, generalized linear models, and linear mixed effects models (with both frequentist and Bayesian frameworks); structural equation models, monte carlo simulation, machine learning techniques, fixed- and random-effects meta-analysis.

**Software and Programming Proficiencies:** R, RMarkdown, SPSS, MPLUS, JavaScript, Microsoft Office, Qualtrics, GitHub

**Coursework in Research Methods and Statistics:** Statistical Analysis of Psychological Experiments: Psych 610; Design and Analysis of Psychological Experiments: Psych 710; Introduction to Applied Machine Learning: Psych 711; Computing Tools for Data Analytics: Stat 679; Meta-Analysis: Ed Psych 711; Structural Equation Modeling: Ed Psych 960; Hierarchical Linear Modeling: Ed Psych 964; Bayesian Statistics for Education Research: Ed Psych 711; Randomized Trials to Inform Education Policy: ELPA 940.