

Kelly Findley, Ph.D.

CURRICULUM VITAE

Teaching Assistant Professor

Department of Statistics
The University of Illinois at Urbana-Champaign

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ACADEMIC INTERESTS

- Qualitative research methods in statistics education
- Resource views of knowledge and learning
- Students' beliefs about design and their evaluation of data-based claims
- Students' statistical perspectives and epistemologies
- Training and professional development for graduate TAs and instructors in statistics
- Teaching introductory statistics with R [<https://stat212-learnr.stat.illinois.edu/>]
- Curriculum development in statistics

EDUCATION

2015-2019

Ph.D. Curriculum & Instruction: Mathematics Education

Florida State University, Tallahassee, FL
Supervisors: Elizabeth Jakubowski & Ian Whitacre.

Findley, K. (2019). *Connecting disciplinary and pedagogical spaces in statistics: Perspectives from graduate teaching assistants*. Unpublished doctoral dissertation, Florida State University. [<https://iase-web.org/documents/dissertations/19.KellyFindley.Dissertation.pdf>]

2013-2015

M.S. Statistics

Florida State University, Tallahassee, FL

2009-2013

B.A. Mathematics

Bryan College, Dayton, TN
Minors: Politics & Government, Music

APPOINTMENTS

2019 – Present

Teaching Assistant Professor

Department of Statistics
The University of Illinois at Urbana-Champaign

- Teach undergraduate courses for the statistics department
- Conduct research in statistics education
- Supervise training and professional development for teaching assistants and graduate student instructors
- Develop curricular materials in coordination with department instructors

Summer 2021

Visiting Lecturer and Scholar

Center of Methods in Social Sciences
The University of Göttingen

- Co-taught course on Data Collection and Analysis in the Social Sciences
- Conducted research on Students' Conceptions of Statistics

- 2013-2015 & 2018-2019 **Graduate Teaching Assistant**
 Department of Statistics & School of Teacher Education
 Florida State University
- Taught STA2171: Statistics for Biology, STA2122: Introduction to Applied Statistics, ISC3523: Research Methods, and EDF1005: Introduction to Education as instructor of record
 - Assisted with STA4321: Introduction to Mathematical Statistics, STA2023: Fundamental Business Statistics, and CGS2518: Excel Spreadsheets
- 2015-2018 **Research Assistant**
Teaching and Learning Algebraic Thinking Across the Middle Grades: A Research-based Approach Using PhET Interactive Simulations (NSF Grant #1503510)
 Florida State University
- Prepared and reviewed curricular materials used in the project
 - Interviewed teachers, recorded classes, and analyzed results
 - Contributed to the publication of 5 journal articles related to the project

JOURNAL PUBLICATIONS

Published/Accepted

- Findley, K.** (2022). Navigating a disciplinary chasm: The statistical perspectives of graduate teaching assistants. *Statistics Education Research Journal*. 21(1), 32 pages.
<https://doi.org/10.52041/serj.v21i1.14>
- Findley, K.**, Whitacre, I., & Atabas, S. (2020). What's in a name? Leveraging students' informal vocabulary in probability. *Teaching Statistics* 43(2). 72-78. <https://doi.org/10.1111/test.12250>
- Atabas, S., Schellinger, J., Whitacre, I., **Findley, K.**, & Hensberry, K. K. R. (2020). A tale of two sets of norms: Comparing opportunities for student agency in mathematics lessons with and without interactive simulations. *Journal of Mathematical Behavior*, 58. 23 pages.
<https://doi.org/10.1016/j.jmathb.2020.100761>
- Findley, K.** & Lyford, A., (2019). Investigating students' reasoning about sampling distributions through a resource perspective. *Statistics Education Research Journal*, 18(1), 26-45.
<https://doi.org/10.52041/serj.v18i1.148>
- Findley, K.**, Whitacre, I., Schellinger, J., & Hensberry, K. K. R. (2019). Orchestrating mathematics lessons with interactive simulations: Exploring roles in the classroom. *Journal of Technology and Teacher Education*, 27(1), 37-62. <https://www.learntechlib.org/primary/p/184666>
- Whitacre, I., Hensberry, K. K. R., Schellinger, J., & **Findley, K.** (2018). Variations on play with interactive computer simulations: Balancing competing priorities. *International Journal of Mathematical Education in Science and Technology*, 50(5), 665-681.
<https://doi.org/10.1080/0020739X.2018.1532536>
- Hensberry, K. K. R., Whitacre, I., **Findley, K.**, Schellinger, J., & Wheeler, M. B. (2018). Engaging students with mathematics through play. *Mathematics Teaching in the Middle School*, 24(3), 179-183. <https://doi.org/10.5951/mathteacmiddscho.24.3.0179>

Whitacre, I., Atabas, S., & **Findley, K.** (2018). Exploring unfamiliar mathematical territory: Constraints and affordances in a preservice teacher's reasoning about fraction comparisons. *Journal of Mathematical Behavior*, 53, 148-163. <https://doi.org/10.1016/j.jmathb.2018.06.006>

Submitted/In preparation

Berens, F. & **Findley, K.** (submitted). The diamond model of statistics: Framing and measuring students' conceptions about our field. *International Statistical Review*. 30 pages.

Findley, K., Mosely, B., & Ludkowski, A. (submitted). Resources and tensions in student thinking about statistical design. *Statistics Education Research Journal*. 22 pages.

BOOK CHAPTERS

Berens, F., **Findley, K.**, & Hobert, S. (in press). How students' statistics beliefs influence their attitudes: A quantitative and qualitative approach. In Kaiser, G. & Sriraman B. (Eds.) *Reasoning with Data and Statistical Thinking: An International Perspective*, 19 pages. Springer.

CONFERENCE PAPERS

Berens, F., Justice N., **Findley, K.** & Kinson, C. (submitted). Disciplinary appropriation at the beginning of a statistics major. In E. Jones (Ed.) *Fostering Learning of Statistics and Data Science. Proceedings of the Satellite conference of the International Association for Statistical Education (IASE)*. 6 pages. Toronto, CA.

Findley, K., Justice, N., & Berens, F. (2022). Lois Lane, Superman, and Iron Man: How perspectives of statistics influence students' identities and career pursuits. In S. A. Peters, L. Zapata-Cardona, F. Bonafini, & A. Fan (Eds.), *Bridging the Gap: Empowering & Educating Today's Learners in Statistics. Proceedings of the 11th International Conference on Teaching Statistics*, Rosario, Argentina. [<https://doi.org/10.52041/iase.icots11.T3F1>]

Whitacre, I., **Findley, K.** & Atabas, S. (2020). Productive seeds in preservice teachers' reasoning about fractions. In A. I. Sacristán & J. C. Cortés (Eds.), *Proceedings of the 42nd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1477-1484). Mazatlán, Mexico. [<http://www.pmena.org/pmenaproceedings/PMENA%2042%202020%20Proceedings.pdf>]

Findley, K. & Berens, F. (2020). Assessing the disciplinary perspectives of introductory statistics students. *Proceedings of the 23rd Annual Conference on Research in Undergraduate Mathematics Education* (pp. 1090-1095). Boston, MA. [<http://sigmaa.maa.org/rume/RUME23.pdf>]

Findley, K. & Kaplan, J. J. (2019). Is statistics just math? The developing epistemic views of graduate teaching assistants. In A. Weinberg, C. Rasmussen, J. Rabin, M. Wawro, & S. Brown (Eds.), *Proceedings of the 22nd Annual Conference on Research in Undergraduate Mathematics Education* (pp. 196-203). Oklahoma City, OK. [http://sigmaa.maa.org/rume/RUME22_Proceedings.pdf]

Findley, K. & Atabas, S. (2018). Middle-schoolers' construction of probabilistic vocabulary. In T. E. Hodges, G. J. Roy, & A. M. Tyminski (Eds.), *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics*

Education (pp. 868-871). Greenville, SC.

[<http://www.pmena.org/pmenaproceedings/PMENA%2040%202018%20Proceedings.pdf>]

Atabas S., **Findley, K.**, & Schellinger, J. (2018). Using interactive simulations to think mathematically and engage in cognitively demanding tasks. In T. E. Hodges, G. J. Roy, & A. M. Tyminski (Eds.), *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1091-1093). Greenville, SC.

[<http://www.pmena.org/pmenaproceedings/PMENA%2040%202018%20Proceedings.pdf>]

Findley, K. & Kaplan, J. J. (2018). What is statistics? Examining the disciplinary beliefs of incoming statistics TAs. In M. A. Sorto, A. White, & L. Guyot (Eds.), *Looking back, looking forward. Proceedings of the 10th International Conference on Teaching Statistics*, Kyoto, Japan.

[<https://icots.info/10/?contributed=C175>]

Findley, K. & Kaplan, J. J. (2018). Cognitive resources in student reasoning about mean tendency. In A. Weinberg, C. Rasmussen, J. Rabin, M. Wawro, & S. Brown (Eds.), *Proceedings of the 21st Annual Conference on Research in Undergraduate Mathematics Education* (pp. 1345-1351). San Diego, CA. [<http://sigmaa.maa.org/rume/RUME21.pdf>]

Findley, K., Whitacre, I., & Hensberry, K. K. R. (2017). Integrating interactive simulations into the mathematics classroom: Supplementing, enhancing, or driving? In E. Galindo & J. Newton (Eds.), *Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1297-1304). Indianapolis, IN. [<http://www.pmena.org/pmenaproceedings/PMENA%2039%202017%20Proceedings.pdf>]

Whitacre, I., Hensberry, K. K. R. & **Findley, K.** (2017). Teachers' facilitation of play with PhET interactive simulations in middle-school mathematics lessons. In E. Galindo & J. Newton (Eds.), *Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 1386). Indianapolis, IN.

[<http://www.pmena.org/pmenaproceedings/PMENA%2039%202017%20Proceedings.pdf>]

Haider, M., Bouhjar, K., **Findley, K.**, Quea, R., Keegan, B., & Andrews-Larson, C. (2016). Using student reasoning to inform assessment development in linear algebra. In T. Fukawa-Connelly, N. E. Infante, M. Wawro, & S. Brown (Eds.), *Proceedings of the 19th Annual Conference on Research in Undergraduate Mathematics Education* (pp. 163-177). Pittsburgh, PA.

[<http://sigmaa.maa.org/rume/RUME19v3.pdf>]

PRESENTATIONS

Berens, F., Justice, N., **Findley, K.**, & Kinson, C. (accepted for July, 2023). *Disciplinary appropriation at the beginning of a statistics major*. Presentation at International Statistical Institute's (ISI) 65th World Statistics Congress (WSC), Online.

Deeke, J. & **Findley, K.** (June, 2023). *Supporting professional development through teaching assistantships*. Breakout Session at the United States Conference on Teaching Statistics (USCOTS) 2023, State College, PA.

Justice, N. & **Findley, K.**, Berens, F. & Kinson, C. (May, 2023). *Do I belong? Statistics majors' identity formation in their first year*. Presentation at the Research Satellite of the United States Conference on Teaching Statistics (USCOTS) 2023, State College, PA.

- Findley, K.,** Justice, N., Berens, F., & Kinson, C. (May, 2023). *Linking students' statistical perspectives with identity through the lens of disciplinary appropriation*. Presentation at the Research of Statistics Education (RoSE) Conference 2023, Online.
- Berens, F., **Findley, K.,** & Justice, N. (September, 2022). *Lois Lane, Superman, and Iron Man: How perspectives of statistics influence students' identities and career pursuits*. Presentation at the 11th International Conference on Teaching Statistics (ICOTS) International Association of Statistics Education (IASE), Rosario, Argentina.
- Findley, K.** & Mosely, B. (August 2022). *Tensions in student thinking about statistical design*. Presentation at Joint Statistics Meetings (JSM) 2022, Washington D.C. [<https://ww2.amstat.org/meetings/jsm/2022/onlineprogram/MainSearchResults.cfm>]
- Findley, K.** & Deeke, J. (May 2022). *Creating a culture for growth in TA training*. Presentation at the American Mathematical Society (AMS) Western Sectional Meeting Spring 2022, Online. [<https://meetings.ams.org/math/spring2022w/meetingapp.cgi/Paper/14282>]
- Findley, K.** & Berens, F. (July, 2021). *Students' perspectives about statistics: Developing an instrument to capture beliefs about our field*. Presentation at International Statistical Institute's (ISI) 63rd World Statistics Congress (WSC), Online. [<https://www.youtube.com/watch?v=-xMmeoOVig4>]
- Berens, F., **Findley, K.,** & Hobert, S. (July, 2021). *Students' beliefs about statistics and their influence on students' attitudes toward statistics in introductory courses*. Presentation at the 14th International Congress on Mathematical Education (ICME), Online.
- Mosely, B., **Findley, K.,** & Flanagan, K. (July, 2021). *Understanding students' thoughts about experimental design*. Poster Presentation at 2021 United States Conference on Teaching Statistics (USCOTS) 2021, Online. [<https://www.causeweb.org/cause/uscots/uscots21/th-11-understanding-students-thoughts-about-experimental-design>]
- Whitacre, I., **Findley, K.,** & Atabas, S. (May, 2021). *Productive seeds in preservice teachers' reasoning about fractions*. Presentation at the 42nd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA), Online.
- Berens, F. & **Findley, K.** (May, 2021). *New ideas for testing a psychometric instrument using mixed methods*. Presentation at the 76th Annual American Association for Public Opinion Research (AAPOR) Conference, Online.
- Findley, K.** (April, 2020). *Assessment strategies in post-secondary education*. Guest lecture for EOL585: College Teaching. The University of Illinois at Urbana-Champaign.
- Findley, K.** & Berens, F. (February, 2020). *Assessing the disciplinary perspectives of introductory statistics students*. Presentation at 23rd Annual Conference, Research in Undergraduate Mathematics Education (RUME), Boston, MA.
- Findley, K.** (May, 2019). *A slippery slope for new instructors: How introductory statistics turns into remedial mathematics*. Poster Presentation at United States Conference on Teaching Statistics (USCOTS) 2019, State College, PA. [<https://www.causeweb.org/cause/uscots/uscots19/posters/1-22>]

Findley, K. & Kaplan, J. J. (February 2019). *Is statistics just math? The developing epistemic views of graduate teaching assistants*. Presentation at 22nd Annual Conference, Research in Undergraduate Mathematics Education (RUME), Oklahoma City, OK.

Findley, K. & Kaplan, J. J. (January 2019). *Is statistics just math? The developing epistemic views of graduate teaching assistants*. Presentation at the Joint Mathematics Meetings (JMM) 2019, Mathematics Association of America (MAA), Baltimore, MD.

Findley, K. & Atabas, S. (November 2018). *Middle-schoolers' construction of probabilistic vocabulary*. Presentation at the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA), Greenville, SC.

Atabas S. & **Findley, K.**, & Schellinger, J. (November 2018). *Using interactive simulations to think mathematically and engage in cognitively demanding tasks*. Presentation at the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA), Greenville, SC.

Findley, K. & Kaplan, J. J. (July 2018). *What is statistics? Examining the disciplinary beliefs of incoming statistics TAs*. Presentation at 10th International Conference on the Teaching of Statistics (ICOTS), International Association of Statistics Education (IASE), Kyoto, Japan.

Findley, K. (May 2018). *The statistical epistemologies of first year graduate teaching assistants*. Presentation at Electronic Conference on Teaching Statistics (eCOTS) 2018 North Florida Regional Conference, Consortium for the Advancement of Undergraduate Statistics Education (CAUSE), Gainesville, FL.

Findley, K. (February 2018). *Cognitive resources in student reasoning about mean tendency*. Presentation at 21st Annual Conference, Research in Undergraduate Mathematics Education (RUME), San Diego, CA.

Burr, M., **Findley, K.**, & Whitacre, I. (October 2017). *Online simulations: What, how, and why?*. Presentation at Southern regional conference, National Council of Teachers of Mathematics (NCTM), Orlando, FL.

Findley, K. (October 2017). *"Science-izing" the statistics standards*. Presentation at Southern regional conference, National Council of Teachers of Mathematics (NCTM), Orlando, FL.

Findley, K., Whitacre, I., & Hensberry, K. K. R. (October 2017). *Integrating interactive simulations into the mathematics classroom: Supplementing, enhancing, or driving?* Presentation at 39th Annual Conference, Psychology of Mathematics Education – North America (PME-NA), Indianapolis, IN.

Whitacre, I., Hensberry, K. K. R., & **Findley, K.** (October 2017). *Teachers' facilitation of play with PhET interactive simulations in middle-school mathematics lessons*. Poster Presentation at 39th annual meeting, North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA), Indianapolis, IN.

Findley, K. (May 2017). *Student-driven simulations for the statistics classroom*. Poster Presentation at 2017 United States Conference on Teaching Statistics (USCOTS) 2017, State College, PA.
[<https://www.causeweb.org/cause/uscots/uscots17/posters/1-01>]

- Whitacre, I., Hensberry, K. K. R., & **Findley, K.** (February 2017). *Examining the play phase of mathematics lessons involving computer simulations*. Presentation at 21st Annual Conference, Association of Mathematics Teacher Educators (AMTE), Orlando, FL.
- Hollingsworth, L., **Findley, K.**, & Jakubowski, E. (January 2017). *Do college level mathematics courses support student success in introductory statistics?* Presentation at Joint Mathematics Meetings (JMM) 2017, Mathematics Association of America (MAA), Atlanta, GA.
- Findley, K.**, Burr, M., Whitacre, I., Schellinger, J., & Hensberry, K. K. R. (October 2016). *Discovering functions and geometric transformations with an interactive computer simulation*. Presentation at 2016 Annual Conference, Florida Council of Teachers of Mathematics (FCTM), Orlando, FL.
- Schellinger, J., Whitacre, I., Burr, M., Hensberry, K. K. R., & **Findley, K.** (October 2016). *Instructional approaches to support mathematical sense making using interactive simulations*. Presentation at 2016 Annual Conference, Florida Council of Teachers of Mathematics (FCTM), Orlando, FL.
- Findley, K.** & Bose, R. (May 2016). *Investigating international statistics TAs' perceptions on pedagogy and professional development*. Presentation at Electronic Conference on Teaching Statistics (eCOTS) 2016 North Florida Regional Conference, Consortium for the Advancement of Undergraduate Statistics Education (CAUSE), Gainesville, FL.
- Haider, M., Bouhjar, K., **Findley, K.**, Quea, R., & Andrews-Larson, C. (February 2016). *Using student reasoning to inform assessment development in linear algebra*. Presentation at 19th Annual Conference, Research in Undergraduate Mathematics Education (RUME), Pittsburgh, PA.

COURSES/TRAININGS TAUGHT

The University of Illinois at Urbana-Champaign

STAT 420/ASRM 450: Methods of Applied Statistics

- Spring 2021 (180)

STAT 400: Statistics and Probability I

- Spring 2022 (130)

STAT 212: Biostatistics

- Fall 2019 (360), Spring 2020 (200), Fall 2020 (300), Spring 2021 (330), Fall 2021 (330), Spring 2022 (200), Fall 2022 (400), Spring 2023 (400)

STAT 200: Statistical Analysis

- Fall 2022 (250)

STAT 100: Statistics

- Spring 2020 (180), Summer 2023 (22)

Statistics TA Training

- Fall 2020, Fall 2021, Fall 2022

The University of Göttingen

Methods of Data Collection and their Impact on Data Analysis

- Summer 2021

Florida State University

EDF 1005: Introduction to Education

- Fall 2018 (24), Spring 2019 (17)

ISC 3523: Research Methods

- *Fall 2018 (13)*

STA 2122: Introduction to Applied Statistics

- *Spring 2017 (60)*

STA 2171: Statistics for Biology

- *Fall 2014 (60), Spring 2015 (35)*

CURRICULAR DEVELOPMENT

STAT 212: Biostatistics

- Complete re-design of the course, including comprehensive course note set, homeworks, original lab assignments with a focus on inquiry, and custom R tutorials
- These course materials have also been adapted for use in STAT 100: Statistics, and STAT 200: Statistical Analysis

SUPERVISION OF GRADUATE STUDENT INSTRUCTION

Summer 2022	Tang, T. – STAT 100
Summer 2022	Liu, Z. – STAT 100
Summer 2021	Cardenas-Torres, E. – STAT 100
Summer 2021	Williams, T. – STAT 100
Fall 2020	Yun, S. – STAT 212

SUPERVISION OF STUDENT RESEARCH OR INDEPENDENT STUDY

Graduate

2020-2022 **Mosely, B.** – Research on Students' Beliefs about Experimental Design

Undergraduate

Spring 2023	Li, Z. – Research on Student Perceptions of Randomness
Spring 2023	Zeng, W. – Research on Student Perceptions of Randomness
Winter 2022-23	Ludkowski, A. – Data coding for Experimental Design project
Fall 2020	Pazmino, B. – Creation of R coding tutorials using <code>learnr</code>

GRANTS

Hoffmeister, A. (PI), Kerman, E., Douglas, J., & **Findley, K.** (2022). *Enhancing operations of the walk-in tutoring center to support students in mathematics & statistics courses*. Funding proposal for Liberal Arts and Sciences Student Success Initiative. \$25,000.

HONORS & AWARDS

2019-2022	List of Instructors Ranked Excellent by their Students – The University of Illinois at Urbana-Champaign
2015-2018	McDonald Scholar – Florida State University
2013-2015	Legacy Fellow – Florida State University

Spring 2015 **Nomination for Outstanding Teaching Assistant Award** – Florida State University

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Statistical Association (ASA) – *ASA Chapter on Statistics and Data Science Education*

Mathematical Association of America (MAA) – *Special Interest Group in the Mathematical Association of America (SIGMAA) on Statistics Education (STAT-ED), Special Interest Group in the Mathematical Association of America (SIGMAA) on Research in Undergraduate Mathematics Education (RUME)*

SERVICE TO THE UNIVERSITY

The University of Illinois at Urbana-Champaign

2020–Present	Committee Chair for Teaching Assistant Training – Department of Statistics
2022–Present	Committee Chair for Graduate Student Awards – Department of Statistics
2022–Present	Committee Member for Undergraduate Program Committee – Department of Statistics
2023	Committee Member for Student Success Innovation Proposal Committee – College of Liberal Arts and Sciences
2021, '22	Judge – Annual Undergraduate Research Symposium, University of Illinois
2020, '21, '22	Committee Member for Specialized Faculty Search – Department of Statistics
2020–2022	Committee Member for Timetable – Department of Statistics
2021, '22	Microteaching Facilitator – CITL Graduate Teaching Academy
2020–2022	Committee Member for Courses and Curricula– College of Liberal Arts and Sciences
2020–2021	Committee Member for Student Appeals – Department of Statistics

Florida State University

2018–2019	President - School of Teacher Education Grad Student Association (STEGSA)
2016–2018	Treasurer - School of Teacher Education Grad Student Association (STEGSA)

SERVICE TO THE PROFESSION

Project Participation

2021–Present	Statistical Consultant for the “PhET Development of Simulations for Statistics and Data Science” project: https://phet.colorado.edu/
	“Center and Variability” https://phet.colorado.edu/en/simulations/center-and-variability
	“Mean: Share and Balance” https://phet.colorado.edu/en/simulations/mean-share-and-balance

Guest Reviewer for Refereed Journals

2023 – Present	Journal of Statistics and Data Science Education (JSDSE)
2022 – Present	Statistics Education Research Journal (SERJ)
2020 – Present	Mathematics Teacher
2018	Science Education
2017	Review of Science, Mathematics, and ICT Education

Service to Professional Organizations

2023	Paper Referee – Americas Conference on Information Systems
2018, '22	Paper Referee – International Conference on the Teaching of Statistics
2018, '19, '20, '21	Proposal Reviewer – Annual Conference on Research in Undergraduate Mathematics Education
2017, '19, '20	Proposal Reviewer – North American Chapter of the International Group for the Psychology of Mathematics Education