

# Kelly Findley, Ph.D.

## CURRICULUM VITAE

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### Teaching Assistant Professor

Department of Statistics  
The University of Illinois at Urbana-Champaign

605 E. Springfield Ave.  
Champaign, IL 61820  
kfindley@illinois.edu

## ACADEMIC INTERESTS

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

## EDUCATION

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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 Unpublished doctoral dissertation, Florida State University.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](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

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2019 – Present

### Teaching Assistant Professor

Department of Statistics  
The University of Illinois at Urbana-Champaign

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

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

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### 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/mathteacmidscho.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.** (in preparation). The diamond model of statistics: Framing student conceptions about our field.

**Findley, K.** & Mosely, B. (in preparation). Tensions in Student Thinking about Statistical Design.

### BOOK CHAPTERS

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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.) *Students' Interactions with Data in Teaching Statistics: International Perspective*, 19 pages. Springer.

### CONFERENCE PAPERS

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**Findley, K.**, Justice, N., & Berens, F. (accepted). Lois Lane, Superman, and Iron Man: How perspectives of statistics influence students' identities and career pursuits. *Proceedings of the 11<sup>th</sup> International Conference on the Teaching of Statistics*, Rosario, Argentina.

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 23<sup>rd</sup> 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 22<sup>nd</sup> Annual Conference on Research in Undergraduate Mathematics Education* (pp. 196-203). Oklahoma City, OK. [[http://sigmaa.maa.org/rume/RUME22\\_Proceedings.pdf](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.  
[\[http://www.pmena.org/pmenaproceedings/PMENA%2040%202018%20Proceedings.pdf\]](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 10<sup>th</sup> International Conference on Teaching Statistics*, Kyoto, Japan.  
[\[https://icots.info/10/?contributed=C175\]](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. [\[http://sigmaa.maa.org/rume/RUME21.pdf\]](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. [\[http://www.pmena.org/pmenaproceedings/PMENA%2039%202017%20Proceedings.pdf\]](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.  
[\[http://www.pmena.org/pmenaproceedings/PMENA%2039%202017%20Proceedings.pdf\]](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.  
[\[http://sigmaa.maa.org/rume/RUME19v3.pdf\]](http://sigmaa.maa.org/rume/RUME19v3.pdf)

## PRESENTATIONS

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**Findley, K.**, Justice, N., & Berens, F. (accepted for September, 2022). *Lois Lane, Superman, and Iron Man: How perspectives of statistics influence students' identities and career pursuits*. Presentation at the International Conference on Teaching Statistics, Rosario, Argentina.

**Findley, K.** & Mosely, B. (August 2022). *Tensions in student thinking about statistical design*. Presentation at Joint Statistics Meetings 2022, Washington D.C.

**Findley, K.** & Deeke, J. (May 2022). *Creating a Culture for Growth in TA Training*. Presentation at the American Mathematical Society Western Sectional Meeting Spring 2022, Online.

**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 63<sup>rd</sup> World Statistics Congress, Online.

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 14<sup>th</sup> International Congress on Mathematical Education, 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), Online.
- 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 76<sup>th</sup> 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 23<sup>rd</sup> 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 2019 United States Conference on Teaching Statistics (USCOTS), State College, PA.
- Findley, K.** & Kaplan, J. J. (February 2019). *Is statistics just math? The developing epistemic views of graduate teaching assistants*. Presentation at 22<sup>nd</sup> 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), 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 10<sup>th</sup> 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 21<sup>st</sup> 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 39<sup>th</sup> 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 39<sup>th</sup> 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), State College, PA.
- Whitacre, I., Hensberry, K. K. R., & **Findley, K.** (February 2017). *Examining the play phase of mathematics lessons involving computer simulations*. Presentation at 21<sup>st</sup> 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), 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 19<sup>th</sup> Annual Conference, Research in Undergraduate Mathematics Education (RUME), Pittsburgh, PA.

## COURSES/TRAININGS TAUGHT

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### The University of Illinois at Urbana-Champaign

- STAT 420/ASRM 450: Methods of Applied Statistics
  - o *Spring 2021 (180)*
- STAT 400: Statistics and Probability I
  - o *Spring 2022 (130)*
- STAT 212: Biostatistics
  - o *Fall 2019 (360), Spring 2020 (200), Fall 2020 (300), Spring 2021 (330), Fall 2021 (330), Spring 2022 (200), Fall 2022 (400)*
- STAT 200: Statistical Analysis
  - o *Fall 2022 (270)*
- STAT 100: Statistics
  - o *Spring 2020 (180)*
- Statistics TA Training
  - o *Fall 2020, Fall 2021, Fall 2022*

### The University of Göttingen

- Methods of Data Collection and their Impact on Data Analysis
  - o *Summer 2021*

### Florida State University

- EDF 1005: Introduction to Education
  - o *Fall 2018 (24), Spring 2019 (17)*
- ISC 3523: Research Methods
  - o *Fall 2018 (13)*
- STA 2122: Introduction to Applied Statistics
  - o *Spring 2017 (60)*
- STA 2171: Statistics for Biology
  - o *Fall 2014 (60), Spring 2015 (35)*

## SUPERVISION OF GRADUATE STUDENT INSTRUCTION

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

## SUPERVISION OF STUDENT RESEARCH OR INDEPENDENT STUDY

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### Graduate

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

### Undergraduate

Fall 2020      **Pazmino, B.** – Creation of R coding tutorials using `learnr`

## GRANTS

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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

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2019-2022	<b>List of Instructors Ranked Excellent by their Students</b> – The University of Illinois at Urbana-Champaign
2015-2018	<b>McDonald Scholar</b> – Florida State University
2013-2015	<b>Legacy Fellow</b> – Florida State University
Spring 2015	<b>Nomination for Outstanding Teaching Assistant Award</b> – Florida State University

## MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

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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)*

College Mathematics Instructor Development Source (CoMInDS)

## SERVICE TO THE UNIVERSITY

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### The University of Illinois at Urbana-Champaign

2022–Present	Committee Chair for <b>TA Awards</b> – Department of Statistics
2019–Present	Committee Chair for <b>Teaching Assistant Training</b> – Department of Statistics
2022–Present	Committee Member for <b>Undergraduate Program Committee</b> – Department of Statistics
2020–2022	Committee Member for <b>Timetable</b> – Department of Statistics
2021, 2022	<b>Judge</b> – Annual Undergraduate Research Symposium, University of Illinois
2021, 2022	<b>Microteaching Facilitator</b> – CITL Graduate Teaching Academy
2020–2022	Committee Member for <b>Courses and Curricula</b> – College of Liberal Arts and Sciences
2022	Committee Member for <b>Undergraduate Advisor Search</b> – Department of Statistics
2020, 2021	Committee Member for <b>Specialized Faculty Search</b> – Department of Statistics
2020-2021	Committee Member for <b>Student Appeals</b> – Department of Statistics

### Florida State University

2018-2019	<b>President</b> - School of Teacher Education Grad Student Association (STEGSA)
2016-2018	<b>Treasurer</b> - School of Teacher Education Grad Student Association (STEGSA)



## **SERVICE TO THE PROFESSION**

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### **Project Participation**

2021-2022      Sim Design Team Member for “Center and Variability” [https://phet.colorado.edu/sims/html/center-and-variability/latest/center-and-variability\\_en.html](https://phet.colorado.edu/sims/html/center-and-variability/latest/center-and-variability_en.html)

### **Guest Reviewer for Refereed Journals**

2020- Present      Mathematics Teacher  
2018                Science Education  
2017                Review of Science, Mathematics, and ICT Education

### **Service to Professional Organizations**

2018 – Present      **Proposal Reviewer** – Annual Conference on Research in Undergraduate Mathematics Education  
2018, 2022          **Paper Referee** – International Conference on the Teaching of Statistics  
2017, 2019, 2020   **Proposal Reviewer** – North American Chapter of the International Group for the Psychology of Mathematics Education