Kelly Findley, Ph.D.

CURRICULUM VITAE

Teaching Assistant Professor
Department of Statistics
The University of Illinois at Urbana-Champaign

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Champaign, IL 61820
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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 Unpublished doctoral dissertation, Florida State University.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
- 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

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.** (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

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

Findley, K., Justice, N., & Berens, F. (in press). Lois Lane, Superman, and Iron Man: How perspectives of statistics influence students' identities and career pursuits. *Proceedings of the 11th 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 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%20 Proceedings.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%20 Proceedings.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., **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 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 63rd 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 14th 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 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 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 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), 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), 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 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), 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)*
- **STAT 200: Statistical Analysis**
  - *Fall 2022 (270)*
- **STAT 100: Statistics**
  - *Spring 2020 (180)*
- **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

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

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
2020, '21, '22 **Committee Member** for Specialized Faculty Search – Department of Statistics
2020–2022 **Committee Member** for Timetable **–** Department of Statistics
2021, 2022 **Judge** – Annual Undergraduate Research Symposium, University of Illinois
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

2021-2022	Sim Design Team Member for "Center and Variability" https://phet.colorado.edu/en/simulations/center-and-variability

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, '22	**Paper Referee** – International Conference on the Teaching of Statistics
2017, '19, '20	**Proposal Reviewer** – North American Chapter of the International Group for the Psychology of Mathematics Education