

Kirby M. B. Whittington, Ph.D.

Instructional Specialist, University of Central Florida

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Professional Preparation

- May 2020 **PhD Curriculum and Instruction (Major: Science Education)**
Florida State University
Tallahassee, FL
- Aug 2016 **Masters of Science Teaching (Content area: Biology)**
Florida State University
Tallahassee, FL
- Dec 2011 **Bachelors of Science in Biology and Bachelors of Science in
Secondary Education**
Florida State University
Tallahassee, FL
Degree with Distinction: Cum Laude

Professional Experience

- Sep 2020-May 2022 *Postdoctoral Research Scholar-* Gooru and the University of Utah
Remote position
Worked on the NSF DRK-12 funded Life Right Here and
Everywhere Grant. This five-year grant sought to develop middle
school curriculum that integrated the practices of science and the
practices of engineering to engage students in three-dimensional
learning of life science content. My responsibilities included:
- Lead the design of six-week middle school curriculum based on Next Generation Science Standards performance expectations.
 - Created instructional materials for curricular implementation including teacher training materials and assessment items to measure student learning
 - Designed research study to understand how the implementation of the instructional assisted students learning in areas of engineering practices and science content.
 - Developed and implemented data collection procedure including teacher interview data, classroom observations, student assignments, and student interviews to answer designated research questions
 - Facilitated integration of curriculum into the Gooru online learning system for remote learning purposes
 - Wrote up findings for manuscript publication at multiple science education journals

Aug 2013 – Jan 2019 *Graduate Research Assistant* – Florida State University, Tallahassee, FL
Worked on the NSF funded Robert Noyce Scholarship program. This five-year grant consisted of working with undergraduates who are committed to teaching in high-needs schools after they graduate. My responsibilities included:

- Assist the program mentor for the scholars in implementing monthly seminar meeting and documenting the meetings notes.
- Collecting pre-post survey data on all scholars
- Collecting video data during scholar's full-time teaching internship
- Analyze findings for conference presentations, publications, and reporting to NSF evaluator
- Coordinate with grant evaluator to report the programs progress throughout the year.

Aug 2016-June 2018 *Research Assistant*- Florida State University, Tallahassee, FL
Assisted on a research project to understand pre-service teachers learning about designing and implementing cognitively demanding tasks. This study revolved around an ambitious teaching course where pre-service teachers had to design, implement, revise, and implement a task they believed was cognitively demanding. My responsibilities included

- Acting as a course instructor to facilitate teacher learning around cognitively demanding tasks
- Collecting in class data
- Analyzing relevant data for conference presentations

Jan 2012 – May 2012 *Project Assistant*- Florida State University, Tallahassee, FL
Worked for the Habitat Tracker project. This Institute of Education Science funded project was a multiple year grant to develop a technology enhanced field trip experience to a local natural history museum for elementary school students to develop science literacy. My responsibilities included:

- Developing informational pages for animals within the natural history habitats.
- Inputting data for analysis
- Assisting in the field trips for middle school students

Teaching Experience

University

Fall 2020-Spr 2021	School of Teacher Education, Florida State University
Spring 2017	Masters of Science Teaching Major, Florida State University
Summer 2016	Biology Department, Tallahassee Community College

Public School

2012-2013	7 th Grade Comprehensive Science, Raa Middle School
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Honors and Awards

April 2017	<i>Nominated for the College of Education Robert Gagne research award, Florida State University</i>
May 2016	<i>Recipient of the Drs. Owen & Constance Gaede Endowment for Science Education, Florida State University</i>
April 2016	<i>Nominated for the College of Education Robert Gagne research award, Florida State University</i>
Aug 2011	<i>National Math and Science Initiative Scholarship Recipient, Florida State University</i>

Funded Fellowships

Aug 2014 – Aug 2017	<i>School of Teacher Education Doctoral Fellowship, Florida State University.</i>
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Publications

Refereed Journal Articles

Cetin, P. S., Eymur, G., Southerland, S. A., Walker, J., & **Whittington, K.** (2018). Exploring the effectiveness of engagement in a broad range of disciplinary practices on learning of Turkish high-school chemistry students. *International Journal of Science Education*, 1-25. doi:10.1080/09500693.2018.1432914

Whittington, K., & Tekkumru-Kisa, M., (2020). Pre-Service science teachers as curriculum designers: Learning opportunities afforded in task selection. *Journal of Science Teacher Education*.

Whittington, K., Southerland, S.A., & Tekkumru-Kisa, M. (2022). Examining Relevance in Pre-service Science Teacher Lesson Plans. *International Journal of Science Education*, 44:1, 48-70, DOI: 10.1080/09500693.2021.2012850

Refereed Conference Presentation

Paper presentation

Whittington, K., Tekkumru-Kisa, M., & Southerland, S. A., (2021, March). *Attention to students' cultural funds of knowledge within pre-service teachers' lesson plans*. Paper presented at the National Association of Research in Science Teaching, Portland, OR.

Tekkumru-Kisa, M., Atabas, S., & **Whittington, K.** (2018, April). *Learning to identify worthwhile instructional tasks for promoting deep learning in science and mathematics*. Round table session presented at the American Educational Research Association. New York, NY.

Whittington, K., Haider, M., Tekkumru-Kisa, M., & Andrews-Larson, C. (2017, April). *Nature of tasks selected by preservice teachers*. Paper session presented at the American Educational Research Association, San Antonio, TX.

Whittington, K., Tekkumru-Kisa, M., & Southerland, S. A., Andrews-Larson, C. (2017, April). *What should I have my students do? The nature of tasks selected by pre-service teachers*. Paper session presented at the National Association of Research in Science Teaching, San Antonio, TX.

Whittington, K., Gooden, S.L., & Southerland, S. A.; (2016, April). *Wrapping-Up Laboratory Investigations in Undergraduate Biology Courses*. Paper session presented at the National Association of Research in Science Teaching, Baltimore, MD.

Preston, C., & **Whittington, K.** (2016, April). *The features of teacher preparation programs and beginning teacher retention*. Round table session presented at the American Educational Research Association conference, Washington D.C.

Strimaitis, A. M., & **Whittington, K.** (2016, April). *Reconciling "Everyday Talk" with "Science Talk" in an Undergraduate Biology Laboratory Course for Nonscience Majors*. Paper session presented at the National Association of Research in Science Teaching, Baltimore, MD.

Strimaitis, A. M., & **Browning, K.** (2015, August). *Discursive interactions about ecological interactions: Making student thinking about trophic relationships visible*. Paper presented at the annual meeting of the Ecological Society of America, Baltimore, MD.

Browning, K., Strimaitis, A.M., Schellinger, J.L., Gooden, S.L., and Southerland, S., (2015, April). *Science Teachers' Conceptions About the Practices of Science as they Relate to Classroom Teaching*. Paper session presented at the National Association of Research

in Science Teaching, Chicago, IL.

Non-refereed Conference Presentations

Workshop sessions

Tekkumru-Kisa, M., Kelso, M., & **Whittington, K.**, (2018, May). *Designing for a Productive Discourse around a Cognitively Demanding Task*. Session presented at the UTeach annual conference. Austin, TX.

Tekkumru-Kisa, M., Kelso, M., & **Whittington, K.** (2017, October). *Selecting and implementing cognitively demanding tasks in science classrooms: A model science lesson*. Session presented at the Florida Association of Science Teachers. Orlando, FL.

Whittington, K., Tekkumru-Kisa, M., Rose K., & Southerland, S. A. (2017, July). *Moving beyond 'fun': Selecting cognitively demanding science and mathematics tasks*. Session presented at the Noyce Summit. Washington, D.C.

Tekkumru-Kisa, M., **Whittington, K.**, Kelso, M., Atabas, S., & Coker, R. (2017, May). *Pre-service teachers' learning to select and implement cognitively demanding tasks*. Session presented at the UTeach annual conference. Austin, TX.

Gooden, S., **Whittington, K.**, & Southerland, S. A. (2016, October) *Tying the Bow: Wrapping-up science investigations*. Session presented at the Florida Association of Science Teachers. Orlando, FL.

Membership in Professional Organizations

2014 – Present American Educational Research Association

2014 – Present National Association of Research in Science Teaching