

CURRICULUM VITAE

KARL G. JUNG

Academic Rank

Assistant Professor, Science Education K-8, Department of Teaching and Learning

Education

Ph.D in Curriculum and Instruction Concentration in STEM Education University of Minnesota, Minneapolis, MN Advisors: Bhaskar Upadhyay, Ph.D; Julie C. Brown, Ph.D	2017
M.Ed. in Elementary Education University of Minnesota, Minneapolis, MN	2012
B.S. in Elementary Education University of Minnesota, Minneapolis, MN	2008

Positions/Employment

University of South Florida (2017-Present)

Assistant Professor, Teaching and Learning Aug 2017 – Present

Graduate Appointments (2013 – 2017)

Graduate Research Assistant, STEM Education Aug 2013 – July 2017

Graduate Teaching Assistant, Science Education Aug 2014 – Dec 2016

Student Teaching Supervisor, Elementary Education Aug 2013 – May 2014

Other Professional Employment (2010 – 2013)

2nd Grade Teacher Aug 2010 – May 2013
Knollwood Heights Elementary, Rapid City, SD

Current Membership in Professional Organizations

National Association for Research in Science Teaching (NARST)
Association for Science Teacher Education (ASTE)
National Science Teachers Association (NSTA)

Honors and Awards

JoAnne Buggley Fellowship in Elementary Education

2013

Research, Scholarship and Creative Work

Grants and Contracts

External Sources

Received at the University of South Florida

Co-Principal Investigator

PI Allan Feldman, co-PI David Allsop

Submitted to WIPRO Foundation

WIPRO Science Education Fellowships (January 2018 – May 2022)

Total Costs: \$1,100,000

Currently Under Review

Co-Principal Investigator

PI Julie Brown, co-PI Mark Pacheco

Submitted to National Science Foundation DRK-12, Solicitation #17-584

Responsive Education in Biology for English Learners (REBEL)

Total funding sought: \$1,114,782

Co-Principal Investigator

PI David Rosengrant, co-PIs Rongkai Gou, Karina Hensberry

Submitted to National Science Foundation I-TEST, Solicitation #19-583

Careers & Culture using Augmented Reality for Interactive Labs in STEM: C²ARIL-STEM.

Total funding sought: \$1,500,000

Publications

^G Graduate student author

Refereed Journal Articles

1. Jung, K.G. (2019). Learning to scaffold science academic language: Lessons from an instructional coaching partnership. *Research in Science Education*. 49(4), 1013–1024. DOI: 10.1007/s11165-019-9851-y
2. Constantine, A.M.^G & Jung, K.G. (2019). Using digital science notebooks to support elementary student learning: Lessons and perspectives from a 5th grade science classroom. *Contemporary Issues in Technology and Teacher Education*. 19(3). Retrieved from: <https://www.citejournal.org/volume-19/issue-3-19/science/using-digital->

science-notebooks-to-support-elementary-student-learning-lessons-and-perspectives-from-a-fifth-grade-science-classroom/

3. Jung, K.G. & McFadden, J. (2018). Student justifications in engineering design descriptions: Examining authority and legitimation. *International Journal of Education in Mathematics, Science and Technology (IJEMST)*, 6(4), 398-423. DOI:10.18404/ijemst.440342
4. Jung, K.G. & Brown, J.C. (2016). Examining the effectiveness of an academic language planning organizer as a tool for planning science academic language instruction and supports. *Journal of Science Teacher Education*, 27(8), 847-872. DOI: 10.1007/s10972-016-9491-2

Manuscripts under review/in preparation

1. Sherry, M. B., Agosto, V., Blank, J., Braun, A., Cain, L., Feldman, A., Jung, K.G., & Wolgemuth, J. (Under Review). On being a methodologist in 5Ws +H. Submitted to *Research in the Schools*.
2. Jung, K.G. (in preparation). Coaching elementary science teaching: A case study of four preservice teachers. Target journal: *Journal of Science Teacher Education*.
3. Jung, K.G. (in preparation). Talking and writing three dimensional science: Examining the productive language demands of the NGSS. Target journal: *Journal of Research in Science Teaching*.

Presentations, Posters, and Exhibits

^G Graduate student author

Contributed Papers Presented at Professional Meetings

International and National (Refereed)

1. Jung, K.G. (Accepted, 2020, March) *Talking and Writing Three-Dimensional Science: Examining Productive Language Demands of the NGSS Elementary Standards*. NARST: A Worldwide Organization for Improving Science Teaching and Learning Through Research. Portland, OR.
2. Jung, K.G. (Accepted, 2020, January) *Science Focused Coaching Conversations: Lessons from Four Preservice Elementary Teachers*. Association for Science Teacher Education (ASTE). San Antonio, TX.
3. Jung, K.G. & McFadden, J. (2019, April) *Engineering Design in the Elementary Setting: Examining Student Justifications, Authority and*

Legitimation. NARST: A Worldwide Organization for Improving Science Teaching and Learning Through Research. Baltimore, MD.

4. Wolgemuth, J., Blank, J., Cain, L., Jung, K.G., Feldman, A., Sherry, M., Braun, A., Agosto, V., & Denton, M. (2019, January) *Methodologists: Who Needs Them? Labels and the Power and Privilege to Teach Qualitative Research*. The Qualitative Report. Fort Lauderdale, FL.
5. Jung, K. G. (2018, March) *Planning and Implementing Scaffolds for Science Academic Language: Successes and Challenges in Elementary Science*. NARST: A Worldwide Organization for Improving Science Teaching and Learning Through Research. Atlanta, GA.
6. Jung, K.G. (2018, January) *Elementary teacher actions and processes when planning instruction that scaffolds science academic language through an instructional coaching partnership*. Association for Science Teacher Education (ASTE). Baltimore, MD.
7. Constantine, A.M.^G & Jung, K.G. (2018, January) *Using digital science notebooks to support elementary student learning: Lessons and perspectives from a 5th grade science classroom*. Association for Science Teacher Education (ASTE). Baltimore, MD.
8. Konz, B.^G & Jung, K.G. (2018, January) *Exploring multiple language use in high school science classrooms*. Association for Science Teacher Education (ASTE). Baltimore, MD.
9. Jung, K.G. (2017, January) *Examining the implementation of academic language instructional supports by an elementary science specialist*. Association for Science Teacher Education (ASTE). Des Moines, IA.
10. Jung, K.G. & Brown, J.C. (2016, April) *Pre-service teacher planning for academic language during elementary science instruction*. NARST: A Worldwide Organization for Improving Science Teaching and Learning Through Research. Baltimore, MD.
11. Jung, K.G. & Brown, J.C. (2016, January) *Supporting pre-service science teachers' planning for and scaffolding of academic language use in the elementary classroom*. Association for Science Teacher Education (ASTE). Reno, NV.
12. Jung, K.G. (2015, April) *Examining language expectations and supports during elementary science instruction*. NARST: A Worldwide Organization for Improving Science Teaching and Learning Through Research. Chicago, IL.

13. Jung, K.G. (2015, January) *Academic language supports in elementary science instruction*. Association for Science Teacher Education (ASTE). Portland, OR.
14. Moore, T.J., Tank, K.M., & Jung, K.G. (2015, January) *Lessons learned from teachers implementing STEM integration in their elementary classrooms*. Association for Science Teacher Education (ASTE). Portland, OR.

Regional Conferences

1. Jung, K.G. (2016, October) *Examining the implementation of academic language supports in elementary science instruction*. North Central Region of the Association for Science Teacher Education. Des Moines, IA.
2. Jung, K.G. & Brown, J.C. (2015, October) *Pre-service elementary science teacher planning for academic language*. North Central Region of the Association for Science Teacher Education. Peoria, IL.
3. Jung, K.G. (2014, October) *Academic language supports in elementary science instruction*. North Central Region of the Association for Science Teacher Education. Eau Claire, WI.

Teaching and Curriculum Development

University of South Florida

Graduate

SCE 6315: Teaching Elementary School Science

Undergraduate

SCE 4310: Teaching Elementary School Science

- Urban Teacher Residency Partnership Program (UTRPP)
- Cohort Program

UTRPP Content Coaching

University of Minnesota

Graduate

CI 5502: Science Instruction in the Elementary Grades

Undergraduate

AGRO 1103: Crops, Environment and Society

Advising and Mentoring

Graduate Student Advising

Major Professor

Sharfun Islam Nancy (Science Education)

Doctoral Committee Member

Karrie Wickman (Science Education)

Jennifer Fernandez (Educational Leadership)

Thomas Dolan (Science Education)

Katie Laux (Science Education), Defended - 05/2019

Service and Outreach

Service to the Profession/Discipline

Editorships/Journal Reviewer Experience

Journal of Science Teacher Education 2018 – 2021
Editorial Review Board member

Association of Science Teacher Education 2014 – Present

Equity Committee 2018 – 2020

Graduate Student Forum President 2017 – 2018

Conference Proposal Reviewer

- Thread: Pre-service Teacher Preparation
- Thread: Science Teacher Professional Development

Conference Session Presider

Graduate Student Representative – North-Central Region

NARST: A Worldwide Organization for Improving Science Teaching and Learning Through Research 2016 – Present

Conference Proposal Reviewer

- Strand 7: Pre-service Science Teacher Education

Service to the University/College/Department

University of South Florida

Facilitator - Undergraduate Research Conference April, 2018

Search Committee, Visiting Instructor March, 2018 – June, 2018

Judge – Graduate Student Research Symposium March, 2018

College of Education Scholarship Review Committee March, 2018

Elementary Education Doctoral Student Annual Review 2017 – Present

Member – Qualitative Advisory Group 2017 – Present

November 14, 2019

Presenter – College of Education Pecha Kucha

October, 2017

University of Minnesota

Guest Speaker – “Academic language”

March, 2015

Service to the Community

University of Minnesota Band Alumni Society Board of Directors
Member at large

2015 – 2016

Public and Other Service

^G Graduate student collaborator

^T Classroom teacher collaborator

^S School district collaborator

Professional Development/Outreach

Jung, K.G. & Marder, T.^T (2016, August). *Practical ELL strategies that benefit your entire class*. St. Paul Public Schools Opening Week Science Mini Conference

Jung, K.G., Davis, M.^S, Constantine, A.^G, & Childs, G.^S (2016, July). *Shake It Up*. EngrTEAMS Summer Institute.

Leifeld, M.^S & Jung, K.G. (2015, July). *STEM integration of earth science content standards: Earth materials*. EngrTEAMS Summer Institute.

Jung, K.G., Ring-Whalen, E.A.^G, & Crotty, E.^G (2015, May). *STEM and literacy integration*. Region 11 Minnesota Mathematics and Science Teacher Partnership.

Jung, K.G. & Kamesch, H.^G (2015, March). *Backwards planning, misconceptions and academic language*. Region 11 Minnesota Mathematics and Science Teacher Partnership.