

Su Gao, Ph.D.
 Assistant Professor
 University of Central Florida
 College of Community Innovation and Education, ED 115F
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EDUCATION

- August 2014 University of Nevada, Las Vegas
Ph.D. in Teacher Education, with emphasis in science education
 Dissertation Title: The relationship between science teaching approaches and achievement of eighth grade students across four racial groups in the US
 Major Professor: Dr. Jian Wang
- July 2007 Min Zu University, Beijing, China
 M.A. in Educational Anthropology, with emphasis on the Chinese Minority Education
 Thesis Title: Government-created Wa minority written language and school education from a structural functionalist perspective
- July 1996 Capital Normal University, Beijing, China
 B. A. in Chemistry Education

PROFESSIONAL CERTIFICATIONS

- 2020 Certificate of Completion “Introduction to Argument-Driven Inquiry (ADI) for Secondary Educators”.
- 2013 National Center for Education Statistics (NCES): Training program on the National Assessment of Educational Progress (NAEP)
- 2011 National Center for Education Statistics (NCES): Training program on the International Studies Databases
- 1996 The People’s Republic of China: Secondary School Science Teaching Certificate Number: 20011100141012863
 Endorsements: Chemistry, Secondary

PROFESSIONAL EXPERIENCE

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| 2015-present | <p>University of Central Florida <i>Assistant Professor</i> Teaching science education courses to Elementary and Secondary at undergraduate and graduate levels. Supervising student interns of secondary science education program. Mentoring doctoral students' teaching and research and serving on dissertation committees. Advising undergraduate and graduate science education students.</p> <p>Conducting research, developing creative works, and preparing articles for publications. Writing grant and presenting at professional conferences.</p> <p>Serving on committees at department and college. Participating and contributing to college and community association and governmental agencies. Serving on committees of professional associations.</p> |
| 2014-2015 | <p>University of Nevada, Las Vegas Visiting Assistant Professor</p> |
| 2008 – 2014 | <p>University of Nevada, Las Vegas <i>Teaching Assistant</i> Teaching Undergraduate Science Teaching Methods, Introduction to Elementary and Secondary Education, and General Method Course <i>Research Assistant</i> Conducting research on science teachers' review lessons and their effects on student learning, the relationship between science teachers' teaching approaches and student science achievement in Chinese minority school contexts, and the relationship between curriculum, professional development, and individual science teachers' change in the reform-based context</p> |
| 2009 - 2012 | <p>University of Nevada, Las Vegas <i>Site facilitator</i> Supervised preservice teachers' practicum and student teaching in urban schools of Las Vegas</p> |

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| 2006 - 2007 | Central University for Nationalities, Beijing, China <i>Adjunct Instructor</i> Taught Foundation of Education to Uighur minority students who will be k-12 teachers in their hometowns |
| 2004 - 2007 | Central University for Nationalities, Beijing, China <i>Research Assistant</i> Conducting research on the economic and cultural characteristics of minorities in west China and their local junior high school curriculum reform, and a government-created writing system and school education for Wa minority |
| 2004-2007 | Chemistry Tutor (Part-time) Tutoring chemistry to secondary level students during weekend. |
| 1996 – 2004 | No. 67 Secondary School Beijing, China <i>Chemistry Teacher</i> Taught chemistry at secondary levels (grades 9-12) Teaching Research Group Leader Facilitating my colleagues to prepare science teaching through lesson studies as a leader of chemistry teaching research group |

RESEARCH AND SCHOLARSHIP ACTIVITIES

(Scholarship of Teaching and Learning Grants and Research at UCF Was Highlighted in Green Below).

Research Interests and Foci

- Preparing and supporting preservice and inservice science teachers to teach all students.
- Exploring and comparing teaching strategies and science performance of diverse students in an international context

* Denotes student collaboration on scholarly publications

Publications in National & International Referred Journals

11. Gao, S., Hall, J., Zygouris-Coe, V., Grysko, R. (2022). Understanding the role of science-specific literacy strategies in supporting science teaching and student learning: A case study of preservice elementary teachers in a science methods course that integrated a disciplinary literacy framework. *Electronic Journal for Research in Science & Mathematics Education*, 26 (1), 33-55.
10. Dieker, L.A., Butler, M.B., Ortiz, E., Gao S. (2021). Reflecting upon 30 years of STEM partnerships between industry, university, and public schools: Past lessons, current successes, and future dreams. *Education Sciences*, 11(12), 1-12. <https://doi.org/10.3390/educsci11120760> [2020: H index:19; Q2]

9. Long, H., **Gao, S.**, Yang, L., & Chen, Jin. (2021). Do teaching practices and enjoyment of science matter to science achievement? A Structural Equation Modeling Analysis of PISA US 2015 Data. *Psychology in the Schools*, 59(2), 334-355.
<http://doi.org/10.1002/pits.22611> [Impact factor:1.774,
<https://onlinelibrary.wiley.com/journal/15206807>]
8. **Gao, S.**, Damico, N., & Gelfuso, A. (2021) Integration of the Components of Pedagogical Content Knowledge (PCK): A Case Study of a Teacher's Natural Selection Lesson and Reflection. *Teaching and Teacher Education*, 107, 1-14.
<https://doi.org/10.1016/j.tate.2021.103473> [Impact factor: 3.272
https://journalinsights.elsevier.com/journals/0742-051X/impact_factor]
7. Lopas, C*, Zygouris-Coe, V., Grysko, R., & **Gao, S** (2021) Writing to Learn in Science: Accommodations to support English language learners' writing skills and science content learning in grade 5. *The Reading Teacher*, 74(5), 617-630.
<http://dx.doi.org/10.1002/trtr.1979> [Impact factor:1.311; Five-year Impact factor: 1.281]
6. **Gao, S.**, Long, H., Li, D., and Yang, L. (2019) The mediation effect of student self-efficacy between teaching approaches and science achievement: Findings from 2011 TIMSS US Data. *Social Psychology of Education*, 23, 385-410. 410. <https://doi.org/10.1007/s11218-019-09534-1> [Impact factor: 1.798 (2018); Five-year impact factor: 2.215 (2019)
<https://www.springer.com/journal/11218>; Google Scholar citations: 2]
5. **Gao, S.**, Liu, Y, & McKinney, M. (2019). Learning formative assessment through focused conversation: Analysis of conversation between two pairs of elementary mentors and preservice teachers and their classroom mentors. *International Journal of Mentoring and Coaching in Education*, 8(3), 197-216. <https://doi.org/10.1108/IJMCE-10-2018-0056> [CiteScoreTracker 2018: 1.06 from
<http://www.emeraldgrouppublishing.com/products/journals/journals.htm?id=ijmce>;
Google Scholar citations: 3]
4. Tian T, DeMara RF, & **Gao, S** (2018). Efficacy and perceptions of assessment digitization within a large-enrollment mechanical and aerospace engineering course. *Computer Applications in Engineering Education*, 1-11. <https://doi.org/10.1002/cae.22086>[Impact factor:1.153 from <https://onlinelibrary.wiley.com/journal/10990542>; Google Scholar citations: 3]
3. **Gao, S.**, Wang, J., & Zhong, Z. (2017). Influence of science instruction reform on academic performance of eighth grade students in Chinese Inner-Mongolia autonomous region. *Compare: A Journal of Comparative and International Education*. 1-17.
<http://dx.doi.org/10.1080/03057925.2017.1365285> [2018 Impact Factor, 1.765 from
<https://www.tandfonline.com/toc/ccom20/current>; Google Scholar citations: 4]
2. Hall, J*, **Gao, S.** & Butler, M. (2017). Engaging All Students in Science Practices through a Cell Modeling Lesson. *Science Scope*, 41(4), 56-63.
http://www.nsta.org/store/product_detail.aspx?id=10.2505/4/ss17_041_04_56
(Science Scope is an award-winning, peer-reviewed, practitioners' journal, Published by: National Science Teachers Association (NSTA).)
1. **Gao, S.** & Wang, J. (2016). Do variations of science teaching approaches make difference in shaping student content and problem-solving achievement across different racial/ethnic

groups? *International Journal of Environmental and Science Education*, 11(12), 5404-5428. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1115679.pdf> [Google Scholar citations:9]

- Gao, S.** & Wang, J. (2014). Teaching transformation under centralized curriculum and teacher learning community: Two Chinese chemistry teachers' experiences in developing inquiry-based instruction. *Teaching and Teacher Education*, 44 (1), 1-11.
<https://doi.org/10.1016/j.tate.2014.07.008>
- Gao, S.** (2014). Relationship between science teaching practices with student achievement in Singapore, Chinese Taipei, and US: An analysis using TIMSS 2011 international data. *Frontiers of Education in China*, 9(4), 519-551. 10.3868/s110-003-014-0043-x
- Zhong, Z., & **Gao, S.** (2013). Influences of science teaching approaches on student science performance: A study of 10 middle schools in Inner Mongolia area of China. *Ningxia Academy of Social Sciences* (in Chinese), 5(180), 154-159.
- Gao, S.** (2007). Multicultural Education Curriculum in Canada. *Journal of Chinese Nationality Education* (in Chinese), 2, 43-46.

Manuscripts Submitted to Refereed Journals

- Zygouris-Coe, V., Beeghly, K*, & **Gao, S.** (Submitted, 2023). Disciplinary literacy in secondary science teacher preparation: A systematic literature review. *Journal of Science Teacher Education*.
- Otero, K*, **Gao, S.**, Zygouris-Coe, V., & Nutta, J. (Submitted, 2023). Preparing preservice secondary science teachers to work with multilingual learners' ideas: a case study of a community of practice using TeachLivE. *Contemporary Issues in Technology and Teacher Education (CITE) Journal*.

Regional Journal (Peer-reviewed)

1. McCurdy, R* & **Gao, S.** (Winter, 2019). Developing scientific explanation and argumentation through an Oobleck lesson. *Florida Science Teacher*, 10-18.
(The Florida Association of Science Teachers (FAST) Journal, peer-reviewed, practitioners' journal with an audience made up of all levels of science educators who provide support for teachers, instructors of teachers, and preservice secondary education students.)

Book Chapters

2. **Gao, S.**, & Zygouris-Coe, V. (2021). Preparing secondary science teachers to teach linguistically diverse students. Chapter has been published in *International Handbook of Research on Multicultural Science Education*. Editor-in-Chief: Mary M. Atwater. Springer. https://link.springer.com/content/pdf/10.1007%2F978-3-030-37743-4_40-2.pdf
1. **Gao, S.** (2015). An anthropological investigation of Wa written language being used in school education. In Teng, X., *Growing Up Through Fieldwork*, 288-309. Beijing: MinZu Press (in Chinese).

- Gao, S.** (2011). Government-created minority written language and school education. In Teng, X. & Hai, L., *The Anthropology of Education Series* (3), 420-461. Beijing: MinZu Press (in Chinese).
- Gao, S.** (2011). The implementation of government-created Wa written language in school education. In Teng, X. & Wang, Y., *Implementation of Chinese Government-created Written Language*, 370-405. Beijing: MinZu Press (in Chinese).

Conference Proceedings

2. Tian, T., DeMara, R. F., & **Gao, S.** (2018) "Lockdown Computerized Testing Interwoven with Rapid Remediation: A Crossover Study within a Mechanical Engineering Core Course," in Proceedings of Institute of Electrical And Electronics Engineers (IEEE) Conference on Frontiers in Education (FIE-18), San Jose, CA, USA, October 3 – 6, 2018." <https://ieeexplore.ieee.org/abstract/document/8659064>

FIE uses a two-stage review process that begins with the issuance of a call-for-papers in June of the year preceding the conference. The first stage requires submission of a short abstract that is then peer-reviewed by the technical program committee for appropriateness to the conference, the yearly theme, new and engaging ideas, and so on. Abstracts that are selected are invited to submit full papers and works-in-progress (short papers) for blind peer-review.

1. Kelchner, V. Campbell, L.O., Puig, E. A., Damico, N., Garcia, J., Gelfuso, A., & **Gao, S.** (2017). "A transdisciplinary professional improvement community: The beginning. E. D' Angelo (Ed.), Proceedings of 20th European Conference on Literacy. <https://drive.google.com/file/d/1Hg9kT5kLSFIPwFtjijyOINXKPqP6DmJ7/view?usp=sharing>

Manuscript Preparing to Refereed Journals

- Grysko, R., Zygouris-Coe, V., & **Gao, S.** Using Argument as a Bridge Between Literacy and Science: An Intervention Study in a Science Methods Course for Preservice Teachers.

REFERRED PROFESSIONAL PRESENTATIONS

International/ National

28. Beeghly, K*, **Gao, S.**, Zygouris-Coe, V., Nutta, J., Bai, H. (2023, April 13-16). Preparing preservice secondary teachers to support linguistically diverse students' science learning through coaching in TeachLivE. Presentation at 2023 American Educational Research Association (AERA) Annual Meeting, Chicago, IL.
27. Otero, K*, **Gao, S.**, Zygouris-Coe, V., Nutta, J., Bai, H. (2023, January 12). Preparing preservice secondary science teachers to teach language-diverse students: A case study of a community of practice using TeachLivE [Individual Paper Presentation]. Association for Science Teacher Education (ASTE), Salt Lake City, UT.
26. **Gao, S.**, Zygouris-Coe, V., Nutta, J., Haiyan, Bai., Brendel, K* (2022, April 21 – 26). Examining secondary preservice teachers' understanding of a trifocal approach integrated

- in a science method course. Presented at 2022 American Educational Research Association (AERA) Annual Meeting, San Diego, CA.
25. **Gao, S.**, Zygouris-Coe, V., Nutta, J., Brendel, K*, Haiyan, Bai (2022). Intersection of Science, Second Language, and Literacy Acquisition (ISSLA): An Innovative Collaboration between Interdisciplinary Teacher Education Faculty During Year 1. Presented at the Annual Conference of the Association of Science Teacher Education (ASTE). January 5-8, Greenville, SC.
 24. **Gao, S.**, & Long, HY. (2021). How Teacher Scaffolding Discussion Moderates the Relationship between Students' Independent Science Practices and Science Achievement. Presentation at 2021 American Educational Research Association (AERA) Virtual Annual Meeting. April 8 – 12, 2021.
 23. Long, HY. & **Gao, S.** (2021). How Teacher Scaffolding Explanation Moderates the Relationship between Students' Independent Science Practices and Science Achievement. Presentation at 2021 American Educational Research Association (AERA) Virtual Annual Meeting. April 8 – 12, 2021.
 22. McCurdy, R*, **Gao, S.**, Zygouris-Coe, V., Grysko, R, & Cruz-Deiter, K*, (2021). Learning to integrate science-specific literacy in science teaching: A study of elementary preservice teachers. Presentation at 2021 NARST (a Worldwide Organization for Improving Science Teaching and Learning through Research) Virtual Annual Conference. April 7 – 10, 2021.
 21. Grysko, R., Zygouris-Coe, V., **Gao, S.**, McCurdy, R*, & Cruz-Deiter, K*.(2020). Teaching Science as Argument: An Intervention Study in an Elementary Science Methods Course. Presentation at 2020 American Educational Research Association (AERA) Annual International Conference. Canceled because of the COVID19.
 20. McCurdy, R*, **Gao, S.**, Zygouris-Coe, V., Grysko, R, & Cruz-Deiter, K*, (2020). Learning to integrate science-specific literacy in science teaching: A study of elementary preservice teachers. Presentation at 2020 NARST (a Worldwide Organization for Improving Science Teaching and Learning through Research) Annual International Conference. March 15 – 18, 2020, Portland, OR. Canceled because of the COVID19.
 19. **Gao, S.**, Zygouris-Coe, V., Grysko, R, McCurdy, R*, & Cruz-Deiter, K*, (2020). The integration of disciplinary literacy in an elementary science methods course: an innovative model for strategic collaborations between science education and literacy faculty. Presented at the Annual Conference of the Association of Science Teacher Education (ASTE). January 9-12, San Antonio, TX
 18. Zygouris-Coe, V., Grysko, R., **Gao, S.**, & Hall, J. (2019, December). Multiple voices, common goal: Disciplinary experts co-constructing knowledge about the role of disciplinary literacy in science teaching and learning. Presentation at the Literacy Research Association Conference. December 4-7, Tampa, FL.
 17. Grysko, R., Zygouris-Coe, V., **Gao, S.**, Roberts, S., Fang, Z., Moorman, G., & Wilson, N. (2019, December). Using argument as a bridge between literacy and science teaching and learning: A problems court. Presentation at the 2019 American Reading Forum Conference. December 9-12, Sanibel Island, FL.
 16. Grysko, R., Zygouris-Coe, V., & **Gao, S.** (2019, November). Scientific explanations as a bridge between literacy and science: Results from an intervention study in a preservice

- elementary science course. Presentation at the 2019 annual conference, Association of Literacy Educators and Researchers (ALER). November 7-10, Corpus Christi, TX.
15. **Gao, S.**, Hall, J*. Zygouris-Coe, V., & Grysko, R*., (2019). Learning to teach English language learners through a disciplinary literacy infused science methods course. Presentation at the 2019 annual conference of American Educational Research Association (AERA), April 4-9, 2019, Toronto, Canada.
 14. **Gao, S.**, Damico, N., & Gelfuso, A., (2019). Integration of the Components of Pedagogical Content Knowledge (PCK): A Case Study of a Teacher's Natural Selection Lesson. Presented at annual conference of American Educational Research Association (AERA), April 4-9, 2019, Toronto, Canada.
 13. **Gao, S.**, Zygouris-Coe, V., Grysko, R*. & Hall, J*., (2019). Elementary Preservice Teachers Learning to Teach ELLs through an Integrated Disciplinary Literacy Science Methods Course. Presentation at Annual Conference of the NARST (a Worldwide Organization for Improving Science Teaching and Learning through Research). March 31 - April 3, 2019, Baltimore, MD
 12. Long, HY. & **Gao, S** (2019). Relationships of Teaching Approaches, Enjoyment of Science, and Student Science Performance: An Analysis of PISA 2015 Data of the US. Presentation at Annual Conference of the NARST (a Worldwide Organization for Improving Science Teaching and Learning through Research). March 31 - April 3, 2019, Baltimore, MD.
 11. **Gao, S.** (2018, April). Learning to teach English Language Learners though a science methods course. Presentation at the Annual Conference of the American Educational Research Association (AERA). New York, NY.
 10. Andrea, G., Damico, N., Hall, J*. & **Gao, S.** (2017, November). Moving toward true disciplinary literacy: Examining one middle school science teacher's use of literacy practices during instruction. Presentation at the Annual Conference of Literacy Research Association (LRA). Tampa, FL.
 9. Puig, E., Campbell, L. O., Kelchner, V., Gelfuso, A., **Gao, S.**, Damico, N. & Garcia, J. (2017). Constructing a Transdisciplinary Professional Learning Community of Practice. Presentation at the 20th European Conference on Literacy. Madrid, Spain. July 3-6, 2017.
 8. **Gao, S.**, Hall, J*. & Butler, M. B. (2017, April). Prepare secondary science preservice teachers' to teach English Language Learners through a science methods course. Presentation at the Annual Conference of the American Educational Research Association (AERA). San Antonio, TX.
 7. Hall, J*. & **Gao, S.** (2017, January). Learning to Teach ELL Students Science: Case studies of two preservice biology teachers' experiences. Presentation at the Annual Conference of the Association of Science Teacher Education (ASTE). Des Moines, IA.
 6. **Gao, S.**, & Hall, J*. (2016, July). Learning to teach English Language Learners (ELLs) science: Case studies of secondary preservice teachers' experiences. Presentation at the Annual Conference of the Association of Teacher Educators (ATE). Louisville, KY.
 5. **Gao, S.**, Wang, J., & Li, D. (2016, April). Relationship of teachers' collaboration, teaching confidence, and approaches with student science performance: An analysis of TIMSS

- 2011 data from Korea and U.S. Presentation at the Annual Conference of the National Association for Research in Science Teaching (NARST). Baltimore, MD.
4. **Gao, S. & McKinney, M.** (2016, April). Learning formative assessment through focused conversation: analysis of conversation between two pairs of elementary mentors and preservice teachers. Presentation at the Annual Conference of the American Educational Research Association (AERA). Washington, DC.
 3. Deniz, H., **Gao, S.**, & Adibelli, E. (2016, April). Exploration of factors related to acceptance of evolutionary theory among Chinese preservice biology teachers. Presentation at the Annual Conference of the American Educational Research Association (AERA). Washington, DC.
 2. **Gao, S. & Wang, J.** (2016, March). The relationship between science investigation and achievement: An analysis of TIMSS 2011 data from Korea and US 8th graders. Presentation at the Annual Conference of the Comparative and International Education Society (CIES). Vancouver, Canada.
 1. **Gao, S.** (2016, January). Review lessons and student learning: A Study on Chemistry Teaching and Learning in China. Presentation at the Annual Conference of the Association for Science Teacher Education (ASTE). Reno, NV.
- Gao, S., Wang, J. & Lin, E.** (2015, April). The Relationship between Science Teaching Approaches and Achievement of Eighth Grade Students Across Three Racial Groups in the US. Paper presented at the Annual Conference of the American Educational Research Association (AERA). Chicago, IL.
- Gao, S., Wang, J. & Zhong, Z.** (2014, April). Relationship between Students Perceived Science Teaching Approaches and Their Science Achievement of Process Knowledge: A Study of Two Racial Groups of Chinese Students at Eighth Grade Level. Paper presented at the Annual Conference of the American Educational Research Association (AERA). Philadelphia, PA.
- Gao, S., & Wang, J.** (2013, April). Relationship between Different Science Teaching Approaches and Science Achievement: A Study of Trends in International Mathematics and Science Study (TIMSS) 2007 US Eighth Grade Students across Racial Groups. Paper presented for presentation at the Annual Conference of the American Educational Research Association (AERA). San Francisco, CA.
- Gao, S., Zhong, Z., & Wang, J.** (2013, March). Relationship between Different Science Teaching Strategies and Science Achievement. Paper presented for presentation at the Annual Conference of The National Association for Research in Science Teaching (NARST). Rio Grande, Puerto Rico.
- McKinney, M., **Gao, S.**, Ramirez, K., & Spinos, J. (2012, November). “But We Talk about Our Teaching All Day Long...”: Making Our Practice Visible. Paper presented for the Annual Convention of National Council of Teachers of English (NCTE). Las Vegas, NV.
- Gao, S., Wang, J., & Lin, E.** (2012, April). Does Inquiry-based Teaching Differently Influence Science Achievements of African, Hispanic, and Caucasian American Students? Findings Based on Data from Trends in International Mathematics and Science Study (TIMSS) 2007. Paper presented for the Annual Meeting of the American Educational Research Association (AERA). Vancouver, BC, Canada.

- Lin, E., **Gao, S.**, & Allison Smith (2012, April). Case study methods. Advancing Understanding of Pedagogy Used in Preservice Teacher Education. Paper presented for the Annual Meeting of the American Educational Research Association (AERA). Vancouver, BC, Canada.
- Gao, S.**, & Wang, J. (2012, March). Relationship between Teachers' Beliefs and Practice of Review Lesson and Student Learning. Paper presented at the Annual Conference of The National Association for Research in Science Teaching (NARST). Indianapolis, IN.
- Gao, S.**, & Wang, J. (2011, Summer). Content or Pedagogy: The case study of pre-service elementary teachers' knowledge of inquiry-based instruction and its influence on their science teaching practice. Paper presented at the summer Conference of the Association of Teacher Educators (ATE). Philadelphia, PA.
- Gao, S.**, & McKinney, M. (2011, February). Mentor-intern Conversation about Teaching and Learning: A Case Study of School/University Mentoring Program. Paper presented at the Annual Conference of the Association of Teacher Educators (ATE). Orlando, FL.
- Gao, S.**, Wang, J., & Lin, E. (2010, April). Curriculum, Professional Development, and Individual Teacher's Change: A Case Study of Chemistry Teachers' Implementation of Inquiry-Based Instruction in China. Paper presented for the Annual Meeting of the American Educational Research Association (AERA). Denver, CL.
- Gao, S.**, Wang, J., & Lin, E. (2010, April). Government-Created Minority Written Language and School Education: A Case of Wa Minority Schools in China. Paper presented for the Annual Meeting of the American Educational Research Association (AERA). Denver, CL.
- Gao, S.**, Wang, J., Lin, E., Shi, Q., Cheng, Q., & Liu, S. (2010, March). Science Teachers' Belief of Inquiry-Based Instruction and Its Impact on Practice: A Case Study of Chemistry Teachers in China. Paper presented for the Annual Conference of the Comparative and International Education Society (CIES). Chicago, IL.
- Shi, Q., Wang, J., **Gao S.**, Cheng, Q., & Liu, S. (2010, March). The Paradoxical Relationship Between Science Teacher Efficacy and Student Achievement: Analysis of TIMSS data 2007. Paper presented at the Annual Conference of the Comparative and International Education Society (CIES). Chicago, IL.
- Cheng, Q., Wang, J., Lin, E., Liu, S., Shi, Q., & **Gao, S.** (2010, March). Factors for Mathematic Performance Difference Among the First, Second and Third Generation Asian American Students. Paper presented for the Annual Conference of the Comparative and International Education Society (CIES). Chicago, IL.
- Cheng, Q., Wang, J., Lin, E., Shi, Q., Liu, S., & **Gao, S.** (2009, August). Curriculum and Early Number Sense: A Comparison of First Grade Chinese and U.S. Mathematics Textbooks. Paper presented at the Summer Conference of the Association of Teacher Educators (ATE), Reno, NV.
- Gao, S.**, Wang, J., Lin, E., Shi, Q., Liu, S., & Cheng, Q. (2009, March). Government-Created Minority Written Language and School Education: A Case of Wa Minority Schools in China. Paper presented at the Annual Conference of the Comparative and International Education Society (CIES), Charleston, SC.
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Regional

6. Otero, K*, Beeghly, K*, **Gao, S.**, Zygouris-Coe, V., Nutta, J., & Bai, H. (2022, October 28). Using a tri-focal lens to create a lesson for natural selection. Florida Association of Science Teachers (FAST), Saint Augustine, Florida.
5. **Gao,S.**, Zygouris-Coe, V., Nutta, J., & Brendel, K* (2021, October). Exploring physical and chemical change: Using science-specific literacy tools and English learners accommodations to support all students in a scientific inquiry. Presentation at the Annual Conference of Florida Association of Science Teachers (FAST). St. Augustine, FL.
4. Grysko, R., Zygouris-Coe, V., **Gao, S.**, McCurdy, R*, & Grady, K. (2019, November). Creating scientific readers and writers in the intermediate grades. Presentation at the Florida Literacy Association Conference, Orlando, FL.
3. McCurdy, R*, **Gao, S.**, Grysko, R., Zygouris-Coe, V., & Cruz-Deiter, K (2019). Exploring Erosion: Using Literacy to Navigate a Pathway to Scientific Inquiry. Presentation at the Annual Conference of Florida Association of Science Teachers (FAST). St. Augustine, FL. October 25, 2019.
2. MuCurdy, R* & **Gao, S.** (2018). Developing scientific explanation and argumentation through an Oobleck lesson. Presentation at the Annual Conference of Florida Association of Science Teachers (FAST). Miami, FL.
1. **Gao, S.**, Hay, S*, Parsons, C*, Mcfadden, J.*, & Khemlani, C*. (2017, October). Teaching science to all students. Presentation at the Annual Conference of Florida Association of Science Teachers (FAST). Orlando, FL.

Invited

3. **Gao, S.**, Zygouris-Coe, V., Nutta, J., Bai, H., Otero, K*, & Beeghly, K*. (2023, March 9). Intersection of Science, Second Language, and Literacy Acquisition (ISSLLA): A Practice-Based, Interdisciplinary Teacher Preparation Program [Poster Presentation]. University of Central Florida 2023 Research and Impact Showcase, Orlando, FL
2. **Gao, S.**, Zygouris-Coe, V., & Beeghly, K (2022, December 8). Collaborations with content area educators: Lessons learned about the role of literacy in science teaching and learning. Presentation at UCF Literacy Symposium.
1. **Gao, S.**, Zygouris-Coe, V., Nutta, J., & Bai, H (2022, June). Secondary PSTs' Understanding of A Tri-Focal Approach Integrated in a Science Methods Course. Presentation at 2022 IUSE summit. Washington, DC.

GRANTS

Funded

External

2022

PI: Gao, Su

Title of Funded Proposal: State Science and Engineering Fair of Florida

Funding Agency: Florida Department of Education

Amount: \$72,032.00

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| 2021 | <p>PI: Gao, Su Title of Funded Proposal: State Science and Engineering Fair of Florida Funding Agency: Florida Department of Education Amount: \$72,032.00</p> |
| 2020 | <p>PI: Gao, Su Co-PI: Drs. Vassiliki Zygouris-Coe, Haiyan Bai, Joyce Nutta Senior personal: Dr. Malcolm Butler Title of Proposal: Intersection of Science, Second Language, and Literacy Acquisition (ISSLLA) Funding Agency: National Science Foundation (NSF) (10/1/2020-12/31/2023) Amount: \$300,000.00</p> |
| 2020 | <p>PI: Gao, Su Title of Funded Proposal: State Science and Engineering Fair of Florida Funding Agency: Florida Department of Education Amount: \$67,710.00</p> |
| 2019 | <p>PI: Gao, Su Title of Funded Proposal: State Science and Engineering Fair of Florida Funding Agency: Florida Department of Education Amount: \$72,032.00</p> |
| 2018 | <p>PI: Gao, Su Title of Funded Proposal: State Science and Engineering Fair of Florida Funding Agency: Florida Department of Education Amount: \$72,032.00</p> |
| Internal 2017 | <p>Title of Funded Proposal: Learning to teach science to all students: Integrating literacy in science teaching through an elementary science methods course Funding Agency: Brinson Foundation Amount: \$3,000.00 PI: Gao, Su</p> |

Co-PI: Vassiliki Zygouris-Coe

- 2016
 PI(s):Gao, Su
 Co-PIs: Joyce Nutta
 Title of Funded Proposal: Prepare secondary science preservice teachers' to teach English Language Learners through a science methods course
 Funding Agency: Toni Jennings Exceptional Education Institute (TJEEI)
 Amount: \$4338.00
- 2015
 Principal Investigator: Gao, Su
 Co-PI: Butler, Malcolm
 Member of Research Group: Olcese, N & Hall, J
 Title of Funded Proposal: Learning to teach English Language Learners through a science methods course
 Funding Agency: Toni Jennings Exceptional Education Institute (TJEEI)
 Research Fund, \$2,948.48
- 2012
 Models of teacher professional development lead by experts.
 Project of Philosophy and Social Science, Beijing, China.
 Number: 11JYC014
 Principal Investigator: Ma, Xiaoyi
 Member of research group: Gao, Su
 Research Fund, \$4,400.

Grant Declined

- 2020
 PI: Dr. Roger Azevedo
 Co-PIs: Drs: Su Gao (UCF), David Gibson, and Stacy Kruse (Pragmatic Solutions, Inc.)
 Title of Proposal: Teachers' Metacognition and Inquiry-Based Learning using Virtual Students with simSchool
 Funding Agency: Institute of Education Sciences (IES)
 Department of Education
 Amount: \$1,999,890.00
- 2020
 PI: Liqiang Wang
 Co-PI: Drs. Su.Gao; Gary T Leavens; Shunpu Zhang
 PI: Gao, Su

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| | <p>Title of Proposal: Boot Up Data Science (BUDS): Merging Disparate Educational Components for Preparing the Next Generation of Data Scientists Funding Agency: National Science Foundation (NSF) Amount: \$ 999,953.00</p> |
| 2019 | <p>PI(s): Su Gao Proposal Title: Opportunities to Engaging Student in Science Practices and ELLs' Science Achievement Funding Agency: AERA Amount: \$20,000</p> |
| 2019 | <p>PI: Dr. Vassiliki Zygouris-coe Co-PI: Gao, Su Title of Proposal: STEM Mentoring and Literacy Academy (SMLA) Funding Agency: National Science Foundation (NSF) Amount: \$500,000.00</p> |
| 2018 | <p>PI: Dr. Vassiliki Zygouris-coe Co-PI: Gao, Su Title of Proposal: STEM Mentoring and Literacy Academy (SMLA) Funding Agency: National Science Foundation (NSF) Amount: \$500,000.00</p> |
| 2016 | <p>PI(s):Su Gao Co-PIs: Dr. Lisa Dieker, Dr. Matthew Marino Proposal Title: Increasing students with disabilities' metacognitive skills in inquiry-based science instruction using a virtual environment (SIEVE) Funding Agency: National Science Foundation (NSF) Amount: \$500,000</p> |

Award

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| 2021 | Nominated to be a candidate for Board Member at Large of the Association for Science Teacher Education (ASTE). |
| 2018-2019 | <p>\$3000 UCF ORC Research Mentoring Program</p> |

Mentor Professor: Dr. Vassiliki Zygouris-coe

2017-2018 \$1000
 UCF ORC Research Mentoring Program
 Mentor Professor: Dr. Malcolm Butler

2016-2017 Morgridge International Reading Center Fellow

COURSES TAUGHT

UCF Undergraduate

Elementary Science Methods (face to face, mix mode, VFlex mode)
 Programs in Teaching Science (Mix Mode)
 Science Instructional Analysis (Mix Mode)
 Science Instructional Analysis (face to face version)
 Secondary Internship I
 Secondary Internship II
 Critical Issues and Trends in Secondary Education

UCF Graduate

Seminar in Teaching and Mathematics and Science-Formative Assessment (Mix Mode)
 Methods in Elementary School Science (Interim Course Shepherd)
 Teaching Middle School Science
 Issues and Methods in Secondary School Science (face to face version)
 Issues and Methods in Secondary School Science (Mix mode)

UCF Doctoral

Teaching Theory and Research in Science Education (face to face and online version)

UCF dissertation committees

Kenneth Moore Dissertation committee member 2017-2018
 Rebeca Grysko Dissertation committee member 2018-2019
 Regina McCurdy Dissertation co-chair 2020-2021
 Katherine Cruz-Deiter Dissertation committee member 2020-
 Rebeca Arndt Dissertation committee member 2020-2021
 Stephen Petit Dissertation committee member 2022-

UNLV Undergraduate

Introduction to Elementary Education;
 Introduction to Secondary Education;
 Teaching and Learning Secondary Education (General Methods Course);
 Elementary School Methods Practicum I;
 Elementary School Methods Practicum II;

Teach Elementary School Science (Science Methods Course);
 Elementary Internship Seminar;
 Elementary Supervised Student Teaching.

UNLV Graduate

Teach Elementary School Science
 Secondary curriculum
 Action Research

SERVICE

National and International Professional Organization

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| 2023- | Review Editor on the Editorial Board of Teacher Education (specialty section of Frontiers in Education) |
| 2023- | Member of Communications Committee of the ASTE. |
| 2022 | Thread coordinator of Preservice Science Teacher Preparation Middle/Secondary for 2023 annual conference of the ASTE. |
| 2021 | Breakout Session Speaker for the Association for Science Teacher Education (ASTE) Graduate Student Forum Mini-in-May Conference (5/28/2021). |
| 2021 | Judge for Three Minute Thesis (3MT) competition at 2021 annual conference of the ASTE. (January 15, 2021) |
| 2020-present | Member of Editorial Review Board Educational Research & Development Journal https://www.viethconsulting.com/members/publication/new_waves_issue.php?iid=840415 |
| 2019-Present | Member of Publication Committee of the ASTE. |
| 2019 | Thread coordinator for Curriculum, Pedagogy, and Assessment at 2020 annual conference of the ASTE. |
| 2018 | Thread coordinator for Curriculum, Pedagogy, and Assessment at 2019 annual conference of the ASTE. |
| 2018 | National Science Foundation (NSF) review panel for Division of Research on Learning in Formal and Informal Settings (DRL) K-12 during the 2018 competition. |
| 2018-2020 | Member of Editorial Board (full title of journal): Journal of Global Education and Research (JGER) |

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| 2016 | Thread coordinator for Student Learning p-12 at the 2017 annual conference of the ASTE. |
| UCF | |
| 2022-2023 | School of Teacher Education (STE) faculty and staff advisory Council |
| 2022 | Presenting MAT program at Educators U Knight (5/26/22) |
| 2022 | CRI Group Video Project (2/17/22 CDL recording) an exemplar for FLDOE TPI site and participated methods faculty interview (3/31/22) |
| 2022 | Member of Recruit director of STE 2021 Committee |
| 2022 | Featured at Faculty Center as part of the UCF Faculty SoTL Work https://fctl.ucf.edu/sotl-and-dber/faculty-sotl-activity |
| 2021 | School of Teacher Education (STE) faculty and staff advisory council for 2021-2022 |
| 2020 | School of Teacher Education (STE) Faculty Senate alternate |
| 2020 | Facilitate and attend Secondary Education Group Advising Host by College of Community Innovation and Education (CCIE) Undergraduate Affairs (11/5) |
| 2020 | Judge for CCIE Research Showcase 2020 virtually (11/4) |
| 2019 | Facilitate Secondary Education table at Tabling event for the Consortium for Future Educators@ UCF |
| 2019 | Judge for CCIE's annual student research showcase |
| 2019 | Undergraduate Admissions First Class Experience |
| 2019 | PedsAcademy faculty at Nemours Children's Hospital—pediatric school program |
| 2018-present | Co-chair of Enhancement Scholarship committee of K-8 Mathematics and Science Education MEd program at Lockheed-Martin/UCF academy |
| 2016-2017 | Member of the CEDHP Undergraduate Admission and Retention Committee. |
| 2016 | Member of K-12 STEM Education Search Committee in the School of Teaching, Learning and Leadership |

UNLV

- 2014 Member of the Teacher Education Committee in the Department of Teaching and Learning
- 2014 Member of the Elementary Teacher Education Program Committee in the Department of Teaching and Learning

Professional Reviewer

- 2022-present Thinking Skills and Creativity
- 2019-present International Journal of Mentoring and Coaching in Education
- 2018-present Reviewer for the Association for Science Teacher Education (ASTE)
- 2018-present Reviewer for Action in Teacher Education
- 2017-present Reviewer for Compare: A Journal of Comparative and International Education
- 2015-present Reviewer for Science Education
Reviewer for SAGE Open
- 2014-present Reviewer for Teaching and Teacher Education
- 2011-present Reviewer for American Educational Research Association (AERA) Annual Conference
1. Division K - Teaching and Teacher Education / Section 1: Teaching of PK-12 Students In Science, Technology, Engineering, And Mathematics (STEM)
2. Division K - Teaching and Teacher Education / Section 8: Teacher Professional Development: Impact on Teacher Practices and Student Learning
- 2011 Reviewer for 2012 Association of Teacher Educators (ATE) Annual Conference
- 2011 Reviewer of Volume 16 in the International Perspectives on Education and Society Series published by Emerald Publishing
The Impact and Transformation of Education Policy in China

Local K-12 Community

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| 2022 | Host and co-present at ISSLLA Supervising Teacher Professional Development (Virtually) (2/16/22) |
| 2021 | Host and co-present at ISSLLA Supervising Teacher Professional Development (Virtually) |
| 2020 | Co-Present at Vision 2020 Summer Institute for School District of Osceola County(Virtually) |

PROFESSIONAL AFFILIATIONS

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|---------------|---|
| 2017-present | Member of National Science Teachers Association (NSTA) |
| 2016-present | Member of Florida Association of Science Teachers (FAST) |
| 2015-present | Member of the Association of the ASTE |
| 2012-present | Member of the NARST (A Worldwide Organization for Improving Science Teaching and Learning through Research) |
| 2010- present | Member of the AERA |
| 2009-2016 | Member of the Comparative and International Education Society (CIES) |