

## Geeta Verma

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### Current Position: Professor of Science Education

School of Education and Human Development | Current- July 2019  
University of Colorado Denver

**Founder** (Current- 2019),  
LivedX (livedx.com), an EdTech Startup

### Academic Record

Institution and Major	Degree	Discipline
Kent State University, Kent, OH, USA <i>Curriculum and Instruction</i>	PHD	Science Education
University of Delhi, Delhi, India <i>Education</i>	M.Ed.	Science education   Curriculum Development   Evaluation
University of Delhi, Delhi, India <i>Education</i>	B.Ed.	Science Teaching: Middle and High School
University of Delhi, Delhi, India <i>Zoology</i>	M.Sc.	Entomology
University of Delhi, Delhi, India <i>Zoology</i>	B.Sc.	Zoology   Botany   Chemistry

### Past Positions

Associate Professor of Science Education (Tenured) | August 2010- July 2019 | School of Education and Human Development | University of Colorado Denver | CO USA

Visiting Professor | Stockholm University | Sweden / AY 2016-2017

Associate Professor of Science Education (Tenured) | July 2010- March 2010  
Department of Middle/Secondary Education and Instructional Technology | College of Education | Georgia State University | Atlanta GA | USA

Visiting Professor | Azim Premji University | Bangalore | India | 2014 (Summer)

Visiting faculty | Azim Premji University | Bangalore | India | 2013 (Summer)

Assistant Professor of Science Education (Tenure-Track) | Feb 2010- August 2003  
Department of Middle/Secondary Education and Instructional Technology | College of Education (Mathematics and Science Education Division) | Georgia State University | Atlanta GA | USA

Assistant Professor of Science Education (Tenure-Track) | 2001-2003  
Department of Curriculum, Instruction, and Educational Psychology | School of Education | Loyola University Chicago | IL | USA

Head of the Biology Department and Science Teacher | The Shri Ram School (TSRS), New Delhi | India | 1992 – 1997

### **Research Overview**

*Primary research Focus:* Creating accessible and equitable STEM learning opportunities in formal and informal learning environments

*Research Awards:* Women's Fellowship Award (2016-17), Stockholm University | 2005 Outstanding book award at AERA Narrative SIG | Dean's Fellowship (2001), Kent State University, Kent, OH | Recent Outstanding Alumni (2011) Hall of Fame Award, Kent State University, Kent, OH

### **Teaching Overview**

*Teaching Awards:* 2017 University-Wide Faculty mentoring award, University of Colorado Denver, Denver, CO | 2007 Outstanding Faculty Teaching Award, College of Education, Georgia State University, Atlanta, GA | 1998 Outstanding Faculty award for university orientation teaching, Kent State University, Kent, OH

*Curriculum and Program Development:* Created multiple new courses including fully online and hybrid courses. Fluency in teaching in-person, hybrid, and online classes.

*Advising and Mentoring:* Successfully supervised nine doctoral dissertations as the chair and as a committee member for six doctoral dissertations. Currently chairing one dissertation and two thesis committees. Supervised and mentored over 50 master's students. Generated conference presentations, peer-reviewed manuscripts, and book chapters with students.

### **Service Overview**

**Highlights:** 2019-2024 Co-editor of *Journal of Science Teacher Education* (JSTE)-flagship journal of the Association of Science Teacher Education (ASTE) | 2017-2020 Associate Editor (AE) for

*Journal of Research in Science Teaching (JRST)* | 2015-16 Editorial board Member, *Journal of Research in Science Teaching* | 2015-2019, editorial board member, *Cultural Studies of Science Education* and serve as a lead editor on multiple manuscripts | 2005 Faculty advisor for the Association of International Students, College of Education, Georgia State University | 2002 Faculty advisor for the Association of International Students Loyola University, Chicago, IL

### **Scholarly Honors, Awards, and Distinctions**

*Co-Editor in Chief, Journal of Science Teacher Education (JSTE)*, 2019-2024

Plenary Panel Speaker, *In (ex) clusion and the construction of the "Other" in math and science education* | Stockholm University | 2017

*External Reviewer*, Tenure and Promotion at two peer institutions | 2017

*Visiting Professor*, Stockholm University, Stockholm, Sweden | 2016-2017

*External Reviewer*, Tenure and Promotion at a peer institution | 2016

Invitation to serve as an Associate Editor, *Journal of Research in Science Teaching*, Wiley | 2017

Invitation to serve on the *editorial board* of the *Journal of Research in Science Teaching*, Wiley | 2015

Invitation to serve on the *editorial board* of *Cultural Studies of Science Education*, Springer | 2015

*External Reviewer*, Tenure and Promotion at a peer institution | 2015

Invitation to serve on the *editorial board* for the *East West Education (EWE)*, Research Institute of Curriculum Instruction (RICI), Ewha Womans University, Seoul, South Korea | 2014

*Member, Advisory group*, K-5 STEM Education Collaborative Summit 2014, Public Education and Business Coalition (PEBC), Denver, CO | 2013

*External Reviewer*, Tenure and Promotion at a peer institution | 2013

Invitation to serve on the Academy of Future Teachers Project, *Georgia State University*, Atlanta, GA. | 2011-2012

Hall of Fame Award, *Recent Outstanding Alumni*, Kent State University, Kent, OH | 2011

Invited to serve on the ad-hoc committee to develop the virtual issue on equity, diversity, and multicultural education. *Journal of Research in Science Teaching (JRST)*, WILEY JRST website | 2010-2011

Panel reviewer, National Selection Committee (NSC) for the *Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST)*, National Science Foundation | 2009-2015

Advisor, national curriculum framework project (science education), Royal Govt. of Bhutan, facilitated by *iDiscoveri Center for Education and Enterprise*, New Delhi, India | 2009

Invited to be on the advisory panel and be a guest faculty at *the iDiscoveri Center for Education and Enterprise*, New Delhi, India | 2005-2010

Runner up award for the *Position paper* submitted to the annual meeting of the Southeastern Association for Science Teacher Education (SASTE). *Situating and examining science education research in the postcolonial and global discourse*, Oct. 7-8, 2005, Macon, GA | 2006

Outstanding Narrative Research Book presented by the Narrative Research Special Interest Group of the American Educational Research Association for the edited book. Verma, G. (2004). Colonial and postcolonial science in India: Reenacting and replaying similar themes in the US. In N.K. Mutua & B. B. Swadener (Eds.), *Decolonizing research in cross-cultural contexts: Critical personal narratives* (pp. 53-68). Albany, NY: State University of New York Press | 2005

Dean's Fellowship awarded by the College of Education, *Kent State University*, Kent, OH | 2001

Outstanding International Scholars and Students awards for outstanding academic achievement. Jointly sponsored by *Kent State University and Phi Beta Delta*, the Honor Society of International Scholars | 2000

Outstanding International Scholars and Students awards for outstanding academic achievement. Jointly sponsored by *Kent State University and Phi Beta Delta*, the Honor Society of International Scholars | 1998

Outstanding faculty award for university orientation teaching, *Kent State University*, Kent, OH | 1998

Annual scholarship award received during the Bachelor of Education Degree, *Central Institute of Education*, University of Delhi, Delhi | 1992

### **Refereed Books (In print)**

Koul, R., **Verma, G.**, & Nargund-Joshi (2019). *Science Education in India - Philosophical, Historical, and Contemporary Conversations*. Springer.

Tinker Sacs, G. and **Verma, G.** (2014). *Critical Mass in the Teacher Education Academy: Symbiosis and Diversity*. Chicago, Illinois: Common Ground Publishing

**Verma, G.** (2009). *Science and Society in the Classroom: Using Sociocultural Perspectives to Develop Science Education*. Youngstown, New York: Cambria Press.

**Refereed Journal Articles and Book Chapters (In Print) |** \* indicates authorship with students

**Verma, G.,** & Douglass, H. (2021). Commentary: Intellectual virtues, lived experiences, and engaged science learning. *Journal of Science Teacher Education*, 32(7), 842-846. DOI: 10.1080/1046560X.2021.1932316

Campbell, T., Melville, W., **Verma, G.,** & Park, B. Y. (2021). On the Cusp of Profound Change: Science Teacher Education in and Beyond the Pandemic. *Journal of Science Teacher Education*, 32(1), 1-6. DOI: 10.1080/1046560X.2020.1857065

**Verma, G.** (2021). Informal Science Learning Environments and Contextualized Innovation Spaces (Jugaad). Exploring Phronesis and a virtue-based theory of knowledge. In *Virtues, Science, and Science education* (117-142). Routledge.

Douglass, H., & **Verma, G.** (2021). Examining STEM Teaching at the Intersection of Informal and Formal Spaces: Exploring Science Pre-service Elementary Teacher Preparation. *Journal of Science Teacher Education*, 1-15. DOI: 10.1080/1046560X.2021.1911456

Puvirajah, A., **Verma, G.,** & Campbell, T. (2020). Advancing Minoritized Learners' STEM Oriented Communication Competency Through a Science Center-Based Summer Program. *Journal of Museum Education*, 45(4), 437-449. DOI: 10.1080/10598650.2020.1820812

**Verma, G.,** Campbell, T., Melville, W., & Park, B.Y (2020). Science Teacher Education in the Times of Covid-19 Pandemic. *Journal of Science Teacher Education*, 31 (5), 483-490, DOI: 10.1080/1046560X.2020.1771514

Melville, W., **Verma, G.,** & Campbell, T. (2020). *The Journal of Science Teacher Education in 2019: A Year in Review*, *Journal of Science Teacher Education*, 31 (4), 359-361, DOI: 10.1080/1046560X.2020.1756589

Campbell, T., **Verma, G.,** Melville, W., & Park, B. Y. (2019). JSTE as a Forum for Engaging in Knowledge Generation and Discourses in Science Teacher Education, Equity and Justice-Focused Science Teacher Education, and Professional Learning for Science Teacher Education Scholars. *Journal of Science Teacher Education*, 30 (5), 429-433, DOI: 10.1080/1046560X.2019.1629220

Lederman, N. G., Lederman, J. S., Melville, W., **Verma, G.**, & Campbell, T. (2019). Passing the Torch; A Word from the Incoming Co-Editors-in-Chief. *Journal of Science Teacher Education*, 30 (1), 1-5, DOI: 10.1080/1046560X.2019.1570766

**Verma, G.** (2019) Situating “Jugaad – contextualized innovation” in Science Education in India (pp. 209-225). In R. Koul, G. Verma, & V. Nargund Joshi (Eds.). *Science Education in India - Philosophical, Historical, and Contemporary Conversations*. Springer.

\*Leonard, J., Chamberlin, S., Bailey, B. E., **Verma, G.**, & Douglass, H. (2019) Broadening millennials’ participation in STEM and teaching professions through culturally relevant, place-based, informal science internships (pp. 95-128). In G. Prime (Ed.), *Centering Race in the STEM education of African American K- 12 learners*. New York: Peter Lang.

Melville, W., Kerr, D., **Verma, G.**, Campbell, D. (2018). Autonomy, an Ethic of Belief and Science Education, *Canadian Journal of Science and Mathematics Education*, 18 (2), 87-97. Springer. <https://doi.org/10.1007/s42330-018-0011-6>

\*Johnson, H., Dunlop, J., **Verma, G.**, McClintock, E., DeBay, D., Bourdeaux, B. (2018). Video-Based Teaching Playgrounds: Designing Online Learning Opportunities to Foster Professional Noticing of Teaching Practices. *TechTrends*. 1-10. <https://doi.org/10.1007/s11528-018-0286-5>

**Verma, G.**, & Puvirajah, A. (2018). Examining the mediation of power in informal environments: Considerations and Constraints. In K. Tobin & L. Bryan (Eds.). *Critical Issues and Bold Visions for Science Education: The Road Ahead*. Rotterdam, The Netherlands. Sense Publishers.

**Verma, G.** & Nargund-Joshi, V. (2017). Educational Rights of a girl child in India (2017)? Examining Intersections between Right to Education Act and National Curricular Framework (pp. 85-104). In E. Brown G. Zong (Eds.). *International Advances in Education: Global Initiatives for Equity and Social Justice Information, V.10 (Gender Equity)*, Information Age Publishing

\*<sup>1</sup> Viesca, K. M., Mahon, E., Carson, C. D. & The eCALLMS Team (2017). Online professional learning for science teachers of multilingual learners (pp. 117-135). In A Oliveira & M. Weinberg (eds). *Science Teacher Preparation in Content-Based Second Language Acquisition*. ASTE Series in Science Education. Springer, Cham. DOI: 10.1007/978-3-319-43516-9\_7

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1 Kara Viesca is the lead PI on this grant and the leader of this team and Geeta Verma served on the team as a core science education faculty

- <sup>2</sup>Viesca, K.M., Hamilton, B., Davidson, A., & The eCALLMS Team (2016). Supporting linguistically responsive teaching: e-Learning communities for academic language learning in mathematics and science (eCALLMS) (pp. 215-236). In C. Patrick Proctor, A. Boardman, & E. Heibert. *Teaching Emergent Bilingual Students: Flexible Approaches in an Era of New Standards*. New York. Guilford Press
- \*Leonard, J., Chamberlin, S., Johnson, J., & **Verma, G.** (2016). Social Justice, Place, and Equitable Science Education: Broadening Urban Students' Opportunities to Learn. *The Urban Review*, 48 (3), 355-379
- Dunlap, J., **Verma, G.**, & Johnson, H. (2016). Presence + Experience: A framework for the purposeful design of presence in online courses. *TechTrends*, 60 (2), 145-151.
- \***Verma, G.**, Puvirajah, A., & Webb, H. (2015). Enacting acts of authentication in robotics competition: An Interpretivist study. *Journal of Research in Science Teaching*, 52, 268-295 DOI: 10.1002/tea.21195
- Puvirajah, A., **Verma, G.**, Li, H., & Martin-Hansen, L. (2014). Influence of a science-focused after-school program on high-school students' science attitudes and trajectory. A survey validation study. *International Journal of Science Education, Part B: Communication and Public Engagement*, 4 (2), 2-21. DOI: 10.1080/21548455.2014.930210
- Verma, G.** (2014). Power examined in paradoxical educational contexts: Creating and valuing knowledge. In G. Tinker Sacs and G. Verma (Eds.), *Critical Mass in the Teacher Education Academy: Symbiosis and Diversity* (pp. 99-111). Chicago, Illinois: Common Ground Publishing
- \*Puvirajah, A., **Verma, G.**, & Webb, P. (2012). Examining the mediation of power in a collaborative community: Engaging in informal science as authentic practice. *Cultural Studies of Science Education*. 7, 375-408 (DOI 10.1007/s11422-012-9394-2)
- Martin-Hansen, L., Puvirajah, A., & **Verma, G.** (2012). Creating a pipeline to STEM careers through service learning: The AFT program. In R. E. Yager (Ed), *Exemplary Science Careers in Science and Technology* (pp. 111-128). NSTA Press: Arlington, VA.
- Tinker Sachs, G., Junor Clarke, P., Kinuthia, K., McGrail, E., & **Verma, G.** (2011). Disclosure, dialogue and coming of age in the academy. In S. Robbins, F. Smith Frederica, & S. Santini, (Eds.), *Bridging cultures: International Women Faculty Transforming the US Academy (80-101)*. University Press of America. (Authors in alphabetical order except the first author)

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<sup>2</sup> Kara Viesca is the lead PI on this grant and the leader of this team and Geeta Verma served on the team as a core science education faculty

- \*Sweeney, R., **Verma, G.**, Martin Hansen, L. (2009). Weather Solvers: A conventional wind vane activity becomes an opportunity for problem solving. *Science and Children*, 47 (2), 42-45
- Verma, G.** (2009). The influence of university coursework on pre-service middle and high school teachers' experiences with multicultural themes. *Journal of Science Teacher Education*, 20 (4), 313-332.
- \*Kattoula, E., **Verma, G.**, & Martin-Hansen, L. (2009). Fostering pre-service teachers 'Nature of Science' understandings in a Physics Course. *Journal of College Science Teaching*, 39 (1), 18-26. **Featured article, available to audience with no cost**
- \*Sweeney, R., Martin Hansen, L., **Verma, G.**, & Dunkhase, J. (2009). Embracing all learners' ideas about diffusion and osmosis: A coupled-inquiry approach encouraging students' questions. *Science Scope*, 33 (1), 38-45.
- Verma, G.** & Martin-Hansen, L. (2009). Narrating international and national Trends in US Science Education: An autobiographical approach showcasing Dr. Robert Yager. *Eurasia Journal of Mathematics, Science & Technology Education*, 5(2). 171-181
- Verma, G.** (2008). Using Scholarship of Teaching and Learning (SoTL) to inquire into Pre-service teachers' science lesson planning considerations. *International Journal for the Scholarship of Teaching and Learning*, 2, 23. Retrieved March 11, 2009 from the World Wide Web:  
[http://academics.georgiasouthern.edu/ijstl/v2n2/articles/PDFs/Article\\_Verma.pdf](http://academics.georgiasouthern.edu/ijstl/v2n2/articles/PDFs/Article_Verma.pdf).
- Verma, G.**, Pepper, J., & Martin-Hansen, L. (2008). Effectively communicating with English language learners using sheltered instruction. *Science Scope*, 31 (13), 56-59.
- Verma, G.**, & Martin-Hansen, L. (2008). A conversation between Dana Zeidler and Geeta Verma & Lisa Martin-Hansen: Exploring new possibilities in science education. *Eurasia Journal of Mathematics, Science & Technology Education*, 4(4), 71-79.
- Gado, I., & **Verma, G.**, Simonis, D. (2008). Middle grade teachers' perceptions of their Chemistry teaching efficacy: Findings of a one-year long professional development Program. *Georgia Education Research Journal*, 6 (1). Retrieved March 11, 2009 from the World Wide Web: [http://coefaculty.valdosta.edu/l schmert/gera/current\\_issue.htm](http://coefaculty.valdosta.edu/l schmert/gera/current_issue.htm).
- Verma, G.**, & Habashi, J. (2005). Incorporating themes of contextualized curriculum in a science methods course: Analyzing perceptions of pre-service middle school teachers in multicultural education. *Research and Practice*, 1 (1), 24-47.
- Gado, I., & **Verma, G.** (2004). Emerging issues and trends in international curriculum discourse: Theoretical, philosophical, and pedagogical positions. *Journal of Curriculum and*

*Pedagogy*, 1 (2), 151-176. (Article translated into Portuguese and being used by faculty in Brazil).

**Verma, G.** (2004). Colonial and Postcolonial Science in India: Reenacting and Replaying Similar Themes in the US. In N.K. Mutua & B. B. Swadener (Eds.), *Decolonizing research in cross-cultural contexts: Critical personal narratives* (pp. 53-68). Albany, NY: State University of New York Press. (2005 Outstanding Narrative Research Book presented by the Narrative Research Special Interest Group of the American Educational Research Association).

MacPherson, I., Gado, I., & **Verma, G.** (2004). Three International Commentaries. In J.G. Henderson & K. R. Kesson, *Curriculum wisdom: Educational decisions in democratic societies* (pp. 193-202). Upper Saddle River, NJ: Merrill/Prentice Hall. (Authors in order of nationality -Australia, Benin, India).

Habashi, J., & **Verma, G.** (2003). Multicultural Education: Examining Historical Memories and Language Implementation Policies in India. In J. Zasonen & L. Lestinen (Eds.), *Teaching and Learning for Intercultural Understanding, Human rights and a Culture of Peace*, Annual Vol. 1. (1), Jyvaskyla, Finland: UNESCO Conference on Intercultural Education.

#### **Refereed Conference Proceedings** | \* indicates authorship with students

**Verma, G.**, Johnson, H., Dunlap, J., & McClintock, E. (2015). Fully online methods courses? Reconceptualizing STEM teacher preparation through “spaces of learning”. In S. Chandrasekharan, S. Murthy, G. Banerjee, A. Muralidhar (Eds.). *Proceedings of epiSTEME 6- Emerging Computational Media and Science Education* (pp. 372-380), Cinnamon Teal Publishing, Mumbai, India.

\*Leonard, J., **Verma, G.**, & Douglass, H. (2013). Broadening STEM opportunities through STEM Education. In M. Martinez & A.C. Superfine (Eds.), *Proceedings of the 35<sup>th</sup> Annual Meeting of the North American Chapter of the International Group for Psychology of Mathematics Education* (pp. 485-488), Chicago, IL

**Verma, G.**, Puvirajah, A., & Martin-Hansen, L. (2013). Recruiting Minority Students into STEM through Experiences in being a Teacher. In G. Nagarjuna, A. Jamakhandi, A. & E. M. Sam (Eds.). *Proceedings of epiSTEME 5- International Conference to review research on Science, Technology and Mathematics Education* (pp. 343-350), Cinnamon Teal Publishing, Mumbai, India.

\***Verma, G.**, Puvirajah, A., & Webb, P. (2011). Examining discourse in a high school robotic Club. In S. Chunawala & M. Kharatmal (Eds.). *Proceedings of epiSTEME 4 - International Conference to Review Research on Science, Technology and Mathematics Education* (p. 309-313). Macmillan, Mumbai, India

## Book Reviews

**Verma, G.** (2012). Review of STEM the Tide: Reforming Science, Technology, Engineering, and Math Education in America. *Teachers College Record*, Date Published: July 12, 2012  
<http://www.tcrecord.org> ID Number: 16822, Date Accessed: 7/19/2012 7:23:49 PM

## Refereed Research Brief

**Verma, G.,** Villagra, A., Tokarski, C., Campbell, D., & Puvirajah, A. (2018). CT Science Center's Teen Innovation Program: Supporting Teens STEM Communication Competence. Research Brief Published by Connecticut Science Center

## Submitted Grants | \*indicates external grants

**Verma, G.** (2021, Co-PI, \$800K). Designing a pedagogical system to examine STEM major students' attrition in online and remote learning platforms. Submitted with Biswas, A. (PI), University of Colorado Denver, National Science Foundation.

## Funded Grants | \* indicates external grants

\*Leonard, J., Burrows, A., **Verma, G.**, Gillis, B., & Kitchen, R. (2018-2021, \$ 1.2 M, 20% efforts as CO-PI). *ITEST: The Bessie Coleman Project: Using Computer Modeling and Flight Simulation to Create STEM Pathways*. National Science Foundation.

Biswas, A, & Verma, G. (2021, \$5000). Pedagogical Intervention Recommender System (TABY 2.0): Examining STEM majors' Attrition using Machine Common Sense Reasoning in Online Learning Environments. Creative Research Collaborative (CRC), Faculty Interdisciplinary Fellowships, University Wide

Biswas, A, & Verma, G. (2020, \$5000). Creating a pedagogical toolkit for remote teaching: Leveraging Machine Learning to organize student generated audio and visual data. Creative Research Collaborative (CRC), Faculty Interdisciplinary Fellowships, University Wide

**Verma, G.** (2019, \$1000). Methodological Innovations in Education Research. Faculty Professional Development Grant, School of Education and Human Development, University of Colorado Denver

\*Leonard, J., & **Verma, G.** (2012-2014, 50 % effort as Co-PI, \$149, 928). *Dinosaurs, Denver and Climate Change (D2C2): An ECO-Opportunity Project*. National Science Foundation.

\*Benson, G., Leavey, J., Lim, M., Puvirajah, A., Demir, K., **Verma, G.**, & Martin-Hansen, L. (2009-2014, \$899,949, 20% effort as Co-PI). *Impacting Metro Atlanta Science Teaching (I-MAST)*. National Science Foundation. (Benson, PI, Co-PI's listed in no particular order)

\*Verma, G. & Martin-Hansen, L. (2008-09, 50 % effort as Co-PI; \$123,576). *Sustaining and extending Science Teachers professional development in Clayton and Rockdale County*. Funded by the Georgia Department of Education.). PI – Dr. Christine Thomas.

\*Martin-Hansen, L. & **Verma, G.** (2007-08, 50% effort as Co-PIs; \$143,576). *Sustaining and extending science teachers professional development in Clayton and Rockdale County*. Funded by the Georgia Department of Education. PI – Dr. Christine Thomas.

**Verma, G.** (PI). (2018). *Faculty Development Grant: Transition meeting for the Journal of Science Teacher Education*. The University of Colorado Denver. Received: \$1000

**Verma, G.** (PI). (2016). *Faculty Development Grant: Informal Science*. The University of Colorado Denver. Received: \$1000

**Verma, G.** (PI). (2015). *Faculty Development Grant: Next Generation Science Standards in Global Context*. The University of Colorado Denver. Received: \$1000

**Verma, G.** (PI). (2015). Faculty Development Grant: Developing linguistic responsiveness in science teachers of multilingual learners. Received: \$750

**Verma, G.** (2014, \$125). COLTT (Colorado Learning and Teaching with Technology) Conference Registration Award. University of Colorado Denver.

**Verma, G.** (2013, \$125). COLTT (Colorado Learning and Teaching with Technology) Conference Registration Award. University of Colorado Denver.

**Verma, G.** (2008-09, \$ 800). Principal Investigator, AERA Travel Grant. Minority Faculty. Georgia State University, Atlanta, GA.

**Verma, G.** (2008-09, \$ 800). Principal Investigator, NARST Travel Grant. Minority Faculty. Georgia State University, Atlanta, GA.

**Verma, G.** (2008-09, \$ 3000). Principal Investigator. Project support through Graduate Research Assistant Grant. Research Bureau, College of Education, Georgia State University.

**Verma, G.** (2007-08, \$ 800). Principal Investigator, AERA Travel Grant, Minority Faculty. Georgia State University, Atlanta, GA.

**Verma, G.** (2007-08, \$ 800). Principal Investigator, ASTE Travel Grant, Minority Faculty. Georgia State University, Atlanta, GA.

**Verma, G.** (2007-08, \$ 4000). Principal Investigator. Project support through Graduate Research Assistant Grant. Research Bureau, College of Education, Georgia State University.

**Verma, G.** (2005-06, \$ 800). Principal Investigator, AERA Travel Grant, Minority Faculty. Georgia State University, Atlanta, GA.

**Verma, G.** (2005, \$ 1000). Americas Council Xalapa Faculty Development Seminar. University System of Georgia State University, Atlanta, GA

**Verma, G.** (2003-04, \$ 4800). Principal Investigator. Project support through Graduate Research Assistant Grant. Research Bureau, College of Education, Georgia State University

### **Funded Grants (system level): Significant contributions**

2006-2007 (\$5 million budget)

STEM Initiatives between COE and A & S for the STEM Proposal (Role: Co-authored with Drs. Martin-Hansen and Elliot the capacity building section of the grant proposal)

2006-2007 (\$1.2 million budget)

E-learning franchises for the M.Ed. Science Program (Role: Participant in project development and co-author)

### **Unfunded Grants** | \* indicates external grants

\* Verma, G. (2020, Co-PI, \$2 Million). Strong Kids In STEM: Developing a teacher Intervention. Submitted with Tan, K. (PI), University of Illinois at Urbana-Champaign, Institution of Educational Service (IES).

\*Martin-Hansen, L.M., Verma, G., Puvirajah, A., & Monases, J. (2014, \$ 1.5 M). *Science Curriculum Implementation Project (SCIP)*. National Science Foundation, DRK-12, Research and Development.

\*Co-Principal Investigator, *Retention through Integrative STEM Education (RISE)*, 2014. Howard Hughes Medical Institute. \$2.5M

\*Martin-Hansen, L.M., Verma, G., Puvirajah, A., & Monases, J. (2013, \$ 1.9 M). *Science Curriculum Implementation Assessment Project (SCIAP)*. National Science Foundation, DRK-12, Research and Development)

\*Verma, G., Leonard, J, & Schaeffle, S. (2012, \$ 2.1 M). *Hooked on STEM: Using Robotics Clubs to Apply Mathematical Reasoning and Scientific Processes*. Department of Education

\*Galindo, R, Hartley, L, & Verma, G. (2012, 1.2 M). *The Afterschool/Summer Gardening Programs of Urban Agriculture Groups as Sites for Informal Science Education*. National Science Foundation

\*Martin-Hansen, L.M., Verma, G., Obidat, K., & Puvirajah, A. (2011, \$ 2.9 M). *Science Curriculum Implementation Assessment Project (SCIAP)*. National Science Foundation, DRK-12, Research and Development \$2,968,659)

\*Verma, G., Leonard, J, & Schaeffle, S. (2011, \$ 1.3 M). *Hooked on STEM: Using Robotics Clubs to Apply Mathematical Reasoning and Scientific Processes*. National Science Foundation.

\*Miller, D., Verma, G., Martin-Hansen, L., Demir, A., & Mohammad, F. (2009). (\$12,014,549, 20 % efforts as co-PI). *Transforming Urban Science Teaching and Technology (TrUSTT)*. National Science Foundation

\*Martin-Hansen, L., Verma, G., & Frantz, K. (2009-2011, 33% effort as Co-PIs; \$131,077). *Sustaining and extending science teachers professional development in Clayton and Rockdale County*. Georgia Department of Education.

\*Habashi, J., Verma, G., Soto, L., & Randle, R. (2008, 33% effort as Co-PI's; \$1,020,083). *Immigrants as citizens: Patterns of engagement and social trust*. Project proposal, NSF Sociology division.

\*Verma, G. (2007, \$ 110, 000). The Knowles science teaching foundation research fellowship *Linguistically and culturally responsive science curriculum: A teacher- researcher collaborative implementation study*.

\*Verma, G. (2004, \$ 877,331). *Curriculum as an Inquiry Tool to Promote the Construction of Scientific Understanding in Urban Middle Schools*. NSF Early career grant.

\*Verma, G. (2004, \$ 200,000). *Science as a language for intercultural and international relationship: Facilitating ideas for educational and cultural exchange between India and the US*. U.S Department of State

### **Other Scholarship and Creative Activities**

Verma, G. (2014). Higher Learning Commission Report. Developed STEM education program report for accreditation

Verma, G. (2013). Higher Learning Commission Report. Developed STEM education program report for accreditation

Verma, G. (2007). M.Ed. Science Education Online Portfolio. Developed an online portfolio using LiveText aligned with NSTA standards.

Verma G. (2007). M.Ed. Science Education Online Portfolio Rubric. Developed online “clickable” assessment rubric for recording scores that can be tracked and reported at different stages.

Verma, G. (2006). NCATE M.Ed. Secondary Science Report. Document submitted for NCATE review at Georgia State University. Program fully accredited.

Verma, G. (2006). MCE TEEMS Math/Science Online Portfolio. Developed an online portfolio using LiveText for MCE Math/Science TEEMS program. Aligned INTASC and G-STEP standards and created clickable assessment rubric for recording scores.

## RECENT TALKS AND PRESENTATIONS

### International Keynote and Featured Addresses

Plenary Panel Speaker, *In (ex)clusion and the construction of the "Other" in math and science education* | Stockholm University | 2017

### Invited International Presentations

Melville, W., **Verma, G.**, Campbell, T. (2021). Publishing in the Journal of Science Teacher Education. Association of Science Teacher Education (ASTE), Greenville, SC (virtual)

Campbell, T., & **Verma, G.**, & Melville, W. (2021). How to complete effective peer-reviews. Association of Science Teacher Education (ASTE), Greenville, SC (virtual)

Verma, G. Campbell, T., & Melville, W. (2021). Publishing in Science Education Journals. National Association of Research in Science Teaching (NARST), Vancouver, Canada (Virtual)

**Verma, G.**, Campbell, T., Melville, W. (2020). How to complete effective peer-reviews. Association of Science Teacher Education (ASTE), San Antonio, TX

Campbell, T., & **Verma, G.**, & Melville, W. (2020). Publishing in Science Education Journals. National Association of Research in Science Teaching (NARST), Virtual.

Melville, W., **Verma, G.**, Campbell, T. (2019). Publishing in the Journal of Science Teacher Education. Association of Science Teacher Education (ASTE), Savannah, GA

**Verma, G.**, Campbell, T., Melville, W. (2019). How to complete effective peer-reviews. Association of Science Teacher Education (ASTE), Savannah, GA

Campbell, T., & **Verma, G.**, & Melville, W. (2019). Publishing in Science Education Journals. National Association of Research in Science Teaching (NARST), Baltimore, MD.

**Verma, G.** (2017). *Understanding by Design*. Seminar for University Faculty, Symbiosis University, Pune, India

**Verma, G.** (2017). *Creating Engaging and Meaningful Science Learning Opportunities*. Symbiosis Secretariat School, Pune, India

**Verma, G.** (2017). *Incorporating Design-Based thinking in the Science classroom*. Symbiosis Secretariat School, Pune, India.

**Verma, G.** (2016). *Science Education: Personal, professional, and in-between*. Stockholm University, Stockholm, Sweden.

**Verma, G.** (2015). *Next Generation Science Standards in Global Contexts*. Ewha Womans University, Seoul, South Korea (\$200 Honorarium)

**Verma, G.** (2015). Informal Science. Invited Paper at the Symposium, “*Toward a Meaningful Science Education: Cultural Studies of Science Education*”. European Science Education Conference (ESERA), Helsinki, Finland.

**Verma, G.** (2006). Crossroads between *Social and scientific literacy: Implications for teacher education*. Keynote speaker, *Master Trainers Program (Biology and Mathematics)*, Directorate of Project Planning and In-service, DAV College Managing Committee, New Delhi, India.

**Verma, G.** (2005). *Curriculum Issues in Science Education: Conversations on scientific literacy (social literacy?) based on an empirical study in an American middle school*. Invited presentation for 60 middle and high school teachers to discuss curricular reform issues, The Shri Ram School, New Delhi, India.

**Verma, G.** (2005). *Career diversification and choices for high school science students* Invited presentation for high school science students, The Shri Ram School, New Delhi, India.

**Verma, G.** (2005). *Trends and Issues in Science education teacher preparation programs in the US: A brief overview*. Invited presentation for pre-service science teachers at the College of Education, University of Delhi, New Delhi, India.

**Verma, G.** (2002). *Social and scientific literacy: Exploring the crossroads for social reform, equity and economic opportunities*. Invited presentation at the Ravi J. Matthai Center for Educational Innovation, Indian Institute of Management and Homi Bhabha Center For Science Education, Tata Institute of Fundamental Research. Mumbai, India.

### **Invited National Presentations**

**Verma, G.** (2014, Nov 15). *Making Science Accessible to Multilingual High School Students. Strategies, Challenges, and Opportunities*. COTESOL, Denver (Invited, \$500 Honorarium)

**Verma, G.** (2012). *STEM Recruitment and Retention: Challenges and Opportunities in the United States*. University of Northern Colorado (Department of Chemistry), Ft. Collins, CO.

Martin-Hansen, L., **Verma, G.**, Puvirajah, A., Dass, P., & Walters, E. (2014). *NSTA's Exemplary Science Programs (ESP): Meeting Current Reform Efforts*. Panel discussion at the National Science Teachers Association (NSTA), Long Beach, CA.

Martin-Hansen, L., **Verma, G.**, Puvirajah, A. (2013). *NSTA's Exemplary Science Programs (ESP): Meeting the Reform Features Recommended in the National Science Education Standards*. Panel discussion at the National Science Teachers Association (NSTA), San Antonio, TX.

**Verma, G.** (2010). *Education and Women*. Invited keynote speaker, 3rd Annual BAPS Women's Conference, Lilburn, GA.

### **Invited Regional Presentations**

**Verma, G.** (2019). Inclusive and Alternative Spaces of STEM Learning. Presented at STEM symposium at the School of Education and Human Development. University of Colorado Denver, Denver, CO

**Verma, G.** (2019). Spaces of STEM Learning. Presented at the Office of Research Service Awards. University of Colorado Denver, Denver, CO

### **Refereed Presentations at National and International Meetings**

\* Indicates presentations with students

Douglass, H., & **Verma, G.** (2021). The language of makerspaces: Affordances for CLD students. Paper presented at the National Association for Research in Science Teaching (NARST) International Conference (virtual)

**Verma, G.** (2021). Engaging learners in computer modeling and flight simulation to create STEM pathways. Paper presented at the National Association for Research in Science Teaching (NARST) International Conference (virtual)

Campbell, T., Puvirajah, A., & **Verma, G.** (2021). Advancing Minortized learners' STEM oriented communication competency through a science center-based summer program. Paper presented at the National Association for Research in Science Teaching (NARST) International Conference (virtual)

Biswas, A., **Verma, G.**, & Barber, J. (2021). Improving ethical outcomes with Machine-in-the Loop: Broadening Human Understanding of Data Annotations. Workshop conducted at the presented at the Human Centered AI (HCAI), Neural Information Processing Systems conference (Virtual)

\***Verma, G.**, Browning-Caraballo, T., & Hunt, M (2021). The Bessie Coleman Project: Covid19 Pivot Story. Paper presentation, Northern Rocky Mountain Educational Research Association (NRMERA), Sun Valley, Idaho

Douglass, H., **Verma, G.** & Wee, B. (2020) The Affordances of a Visual Methodology in Understanding Context: Seeing Women's Science and Engineering Experiences. Paper presentation, National Association for Research in Science Teaching (NARST) International Conference. Portland, OR.

Douglass, H., Gun-Yildiz, S., Kayumova, S., Ryu, M., Salloum, S., Siry, C., Tuvilla, M.R., **Verma, G.**, Wilmes, S. Wright, C.E., & Varela, M. (2020). Critical Views of Science Education Research in Linguistically and Culturally Diverse Contexts. Symposium, National

Douglass, H., & **Verma, G.** (2020). How Can Teaching STEM in an Elementary School be Out-of-Field? Paper presentation, Association for Science Teacher Education (ASTE) National Conference. San Antonio, TX.

**Verma, G.**, Tandon, M., Donovan, C. (2019). *Sharing Experiences Using Crowdsourcing for Data Collection & Analysis in Education*. Northern Rocky Mountain Educational Research Association, Denver, CO

**Verma, G.**, Campbell, T., Puvirajah, A. (2019). *Leveraging Research Practice Partnerships to examine problems of practice in informal science learning contexts*. Presented at the 2019 National Association for Research in Science Teaching (NARST) International Convention. Baltimore, MD

Douglass, H., & **Verma, G.** (2019). Design thinking and maker spaces. Presented at the 2019 Association of Science Teacher Education (ASTE), Savannah, GA

**Verma, G.**, Campbell, T., & Puvirajah, A. (2018). *Identifying High Leverage Practices in an Informal Project: Sustaining a Research Practice Partnership*. Presented at the 2018 National Association for Research in Science Teaching (NARST) International Convention. Atlanta, GA.

Martin-Hansen, L., & **Verma, G.** (2018). *Three Dimensionality in Middle School through the Use of 6-E Instructional model*. Workshop conducted at the 2018 National Science Teacher Association (NSTA) International Convention, Atlanta, GA.

**Verma, G.**, Douglass, H., & Puvirajah (2018). *Integrating Robotics for all Middle Schools Students*. Workshop conducted at the 2018 National Science Teacher Association (NSTA) International Convention, Atlanta, GA.

**Verma, G.**, Wickman, P-O., Kozma, C. (2017). Creating inclusive science learning opportunities for newly arrived students in Sweden: Examining an afterschool program. *In symposium*

*Embracing Diversity: Examples from Science Classrooms in Sweden, Luxembourg and the U.S.* Presented at the 2017 European Science Education Conference (ESERA). Dublin, Ireland.

\***Verma, G.**, Campbell, T., McKenna, T. J., Gruner, H., & Villagra, A (2017). *Supporting URM's in Informal Science Learning Contexts*. Presented at the 2017 National Association for Research in Science Teaching (NARST) International Convention. San Antonio, TX.

Melville, W., Kerr, D. & Campbell, T., **Verma, G.** *Autonomy, Power and Science Education* (2017). Presented at the 2017 National Association for Research in Science Teaching (NARST) International Convention. San Antonio, TX.

\***Verma, G.**, & Douglass, H. (2016). *Supplemental and Optional take-home projects for Culturally and Linguistically Diverse Learners: Formal and the Informal*. Paper presented at the National Association for Research in Science Teaching (NARST) International Convention, Baltimore, MD.

\*Bordeaux, B., **Verma, G.**, Dutton, K., & Willson, K. (2016). *Differentiated professional development for science teachers. Incorporating reform efforts into personalized PD Plan*. Poster presentation at the Association of Science Teacher Education, Reno, Nevada

\*Douglass, H., **Verma, G.**, Bloms, S. (2016). *Designing an informal elementary summer school experience: Teachers, students, and parents speak out*. Poster presentation at the Association of Science Teacher Education, Reno, Nevada

\***Verma, G.**, Leonard, J., & Johnson, J. (2015) *Broadening urban students' opportunities to learn science and influencing interest through informal experiences*. Paper presented at the National Association for Research in Science Teaching (NARST) International Convention, Chicago, IL.

**Verma, G.** (2015). *Enacting Acts of Authentications in an Informal learning environment: Opportunities for Creative Engagement*. Paper presented at the Korean Association of Science Education, Busang, South Korea

**Verma, G.**, Johnson, H., & Dunlap, J. (2015). *Presence + Experience: Purposeful design of presence in online courses*. Paper presentation at the annual COLTT conference, Boulder, CO

**Verma, G.**, & Johnson, H. L. (2015, February) *Leveraging Online Environments: Preparing Today's Secondary STEM Teachers*. 13th Annual CU Women Succeeding Professional Development Symposium. Denver, CO.

**Verma, G.** (2014). *Developing Linguistic Responsive in Science Teachers of Multilingual learners*. In K. Viesca (symposium organizer), *Improving the education of multilingual learners and their teachers through interdisciplinary collaboration and online professional development*. Paper presented at the National Association for American Education Research Association, Philadelphia, PA.

**Verma, G.,** Puvirajah, A., & Martin-Hansen, L. (2014). *Influence of a STEM camp on Underrepresented High School Students: Using Exploratory Factor Analysis*. Paper presented at the National Association for Research in Science Teaching (NARST) International Convention, Pittsburg, PA.

**Verma, G.,** & Johnson, H. (2014). *Creating Online Content Methods Courses in STEM: Challenges and Opportunities*. Paper presentation at the annual COLTT conference, Boulder, CO

\***Verma, G.,** Leonard, Jacqueline, & Lewis, C. (2013). *Exploring Geoscience Participation Opportunities for Elementary-aged Underrepresented Students: Lesson Learned from a 2-year Project*. Paper presented at the Geological Society of America (GSA), Denver, CO

**Verma, G.** (2013). *Creating Authentic Literacy Experiences for Culturally and Linguistically Diverse (CLD) 5<sup>th</sup> Graders' Content Understandings*. Paper presented at the National Association for Research in Science Teaching (NARST) International Convention, San Juan, Puerto Rico.

\***Verma, G.,** Douglass, H., & Hamilton, B. (2013). *Making science accessible to ALL students: Integrating Academic Language Learning in Science*. Paper presented at The Association for Science Teacher Education, Charlotte, South Carolina.

**Verma, G.,** Puvirajah, A., & Martin-Hansen, L. (2013). Recruiting Minority Students into Science, Technology, Engineering, and Mathematics (STEM) through experiences in being a teacher. *EpiSTEME 5 -- International Conference to Review Research on Science, Technology and Mathematics Education*, Mumbai, India.

Puvirajah, A., Martin-Hansen, L.M., & **Verma, G.** (2012). *Creating a Pipeline to STEM Careers*. Paper presented at the Annual Area Meeting of the National Science Teachers Association, Atlanta, GA.

\*Parker, B., **Verma, G.,** & Martin-Hansen, L. (2011). *The Relationship between Nature of Science Understandings and Science Self-Efficacy Beliefs of Sixth Grade Students*. Paper presented at the National Association for Research in Science Teaching (NARST) International Convention, Orlando, FL.

\*McDowell, A., **Verma, G.,** & Martin-Hansen, M. (2011). *Preservice Teachers Understanding of Nature of Science Using Japanese Lesson Study*. Paper presented at the National Association for Research in Science Teaching (NARST) International Convention, Orlando, FL.

\*Mitchell, K., Dray B., Keenan, T., Nocon, H., Davis, A., **Verma, G.,** Shannon, S. (2011). *Successful School-Wide Practices Supporting Multilingual Learners*. Paper presented at the Council of the Great City Schools 55<sup>th</sup> Annual Fall Conference, Boston, MA.

\***Verma, G.,** Puvirajah, A., & Webb, P. (2011). Examining discourse in a high school robotic Club. *EpiSTEME 4 -- International Conference to Review Research on Science, Technology and Mathematics Education*, Mumbai, India.

\*Kinard, M., **Verma, G.**, & Puvirajah, A. (2010). Collaborative concept negotiations for conceptual understandings in a high school Physics class. Paper presented at the American Education Research Association, Denver, CO.

\*Webb, H., **Verma, G.**, & Puvirajah, A. (2010). Construction of science discourse in an extracurricular science and technology project. Paper presented at the National Association for Research in Science Teaching, Philadelphia (NARST) International Convention, PA.

\*Hoy, S., & **Verma, G.** (2010). To iron or to do science: A storied life of a Latina from scientist to science teacher. Paper presented at the National Association for Research in Science Teaching (NARST) International Convention, Philadelphia, PA.

\***Verma, G.**, Habashi, J., & Bravo, M. (2009). *Creating authentic literacy experiences for increased understandings in the science classroom: Adapting science curriculum with 5th grade English Language Learners*. Paper presented at the American Education Research Association, San Diego, CA.

\***Verma, G.**, McDowell, A., Hernandez, G., Miller, K., Voss, K., & McCrary, T. (2008). *Using case-based narratives for professional development in science education*. Paper presented at the Association for Science Teacher Education, St. Louis, MO.

**Verma, G.** & Habashi, J. (2008). *Crafting science curriculum for culturally and linguistically diverse learners: Deconstructing teachers' pedagogical content knowledge*. In L. Liang (Chair), Diversity and Equity in Science Education. Paper presented at the American Education Research Association, New York, NY.

**Verma, G.**, Martin-Hansen, L., & Davis, B. (2008). Engaging teachers in reflective inquiry practices for diverse learners. *Paper presented at the Athens Institute for Education and Research, Athens, Greece.*

**Verma, G.** (2007). *Incorporating instructional design strategy in the elementary science methods course: Shaping teacher candidates' lesson-planning experiences*. Paper presented at the Association for Science Teacher Education, Clearwater, FL.

Habashi, J., **Verma, G.**, Hazem, R., Parker, B. (2007). *Action Research: A Tool to Bridge the Gap between Engineering Research and Experience and the Authentic Inquiry-Based School Science and Mathematics Curriculum*. In L. Carter (Chair), Understanding Inquiry and Nature of Science. Paper presented at the American Education Research Association, Chicago, IL.

**Verma, G.**, & Habashi, J. (2007). *Conducting Science education research in cross-cultural settings: Engaging in postcolonial and global discourses in India and Palestinian territories*. Paper presented at the American Association for the Advancement of Curriculum Studies, Chicago, IL.

**Verma, G.** (2006). *Introducing themes of multicultural education in TEEMS (alternative science) preparation program: Attitudes and perceptions of prospective middle and high school teachers.* Paper presented at the American Education Research Association, San Francisco, CA.

**Verma, G., & Gado, I.** (2006). *Educational Partnership (Cooperation or Patronship) in the Sub-Saharan African Educational Context and the Case of National Science Curriculum in India: Paradoxical Power Structures.* Paper presented at the American Association for the Advancement of Curriculum Studies, Berkeley, CA.

**Verma, G., & Gado, I.** (2005). *Implementation of research-based lesson plans: Participants' attitudes and beliefs in an elementary science methods course.* Poster session presented at the American Education Research Association, Montreal, Canada.

**Verma, G., & Habashi, J.** (2005). *Contextualized science curriculum experiences for middle childhood pre-service teachers: Perceptions and attitudes about multicultural science education.* Paper presented at the American Education Research Association, Montreal, Canada.

**Verma, G., Han, Y., & Yan, J.** (2005). *Reconceptualizing national curriculum in India: The case of science education.* In T. Whitson (Chair), *International and intercultural conversations in transnational settings.* Symposium conducted at the American Association for the Advancement of Curriculum Studies, Montreal, Canada.

**Verma, G., & Habashi, J.** (2004). *Contextualized science curriculum for urban students: Transformation or reproduction of power structures in multicultural science education.* Paper presented at the American Education Research Association, San Diego, CA.

**Gado, I., & Verma, G.** (2004). *Predictors of Primary School Teachers' Orientation toward Inquiry-based science activities in Benin.* Paper presented at the National Association of Research in Science Meeting, Vancouver, BC.

**Verma, G., & Gado, I.** (2004). *Curriculum as an inquiry tool in science: Perceptions of preservice and in-service science teacher.* Paper presented at the School Science and Mathematics Conference, Atlanta, GA.

**Gado, I., & Verma, G.** (2004). *Learning to teach Inquiry-based Lessons by Co-teaching, Peer teaching, and Conducting Research.* Paper presented at the School Science and Mathematics Conference Atlanta, GA.

**Gado, I., & Verma, G.** (2003). *Evaluation of an inquiry-based science content and methods course designed to increase elementary and middle grades science teachers' content knowledge and inquiry teaching skills.* Paper presented at the American Education Research Association, Chicago, IL.

Gado, I., **Verma, G.**, & Kelani, R. (2003). *An ethnographic study of linguistic difficulties in learning science concepts in a multilingual elementary school in a sub-Saharan African former French colony*. Paper presented at the American Education Research Association, Chicago, IL.

Habashi, J., & **Verma, G.** (2003). Examining the nature of dilemmas and predicaments in the context of Palestinian historical memories and language implementation policies in India. *Paper presented at the UNESCO Conference on Intercultural Education, Finland*.

Gado, I., & **Verma, G.** (2002). *Epistemological controversies on Piaget and Vygotsky: A canon debate*. Paper presented at the American Education Research Association, New Orleans, LA.

Verma, G., **Swadener, B.**, Hamilton, A., Campana, A.M., Yovich, B., & Roberts, R. (2002). *Strengthening urban school district-university partnerships: The Kent State University partnership/urban Initiative*. Paper presented at the American Education Research Association, New Orleans, LA.

**Verma, G.** (2001). *Contextualized science curriculum: Influence on student learning in an urban middle school science classroom and teachers perceived self-efficacy beliefs in science teaching*. Paper presented at the American Education Research Association, Seattle, WA

Gado, I., **Verma, G.**, & Simonis, D. (2001). *Conversation on science education by Montessori, Piaget, and Vygotsky*. Paper presented at the Association for Science Teacher Education, Orange County, CA.

Gado, I., & **Verma, G.** (2001). *History of science and science education in developing worlds: The long-term coexistence of mysticism and modern science in Africa and India*. Paper presented at the International History, Philosophy, and Science Teaching Conference (IHPST), Denver, CO.

**Verma, G.**, & Gado, I. (2000). *What does internationalization mean to scholars in the field?* Paper presented at the Internationalization of Curriculum Discourse Conference, Baton Rouge, LA

**Verma, G.** (2000). *Science education in urban school settings: Perspectives, explorations, and implications*. Paper presented at the American Education Research Association, New Orleans, LA.

Gado, I., & **Verma, G.** (1999). *Critical Outlook at European Curriculum: Grassroots curriculum in India and Africa*. Paper presented at the Bergamo conference, Dayton, OH.

Keller, D., Koontz, P., **Verma, G.** (1998). *KSU/NASA robotic telescope for middle school students*. Paper presented at the National Science Teachers Association, Las Vegas, NV.

## **Regional Peer-reviewed Conference Presentations**

Shields, K., **Verma, G.**, & Leonard, J. (2013). *Using Dinosaurs to Excite Kids about Environmental Issues*. Paper presented at the Annual Meeting of the Colorado Alliance for Environmental Education 2013 Teaching Outside the Box (TOTB) - Conference on Environmental Education, Denver, CO.

**Verma, G.**, Lim, M., & Parker, B. (2009). *Action Research for meaningful professional development in culturally and linguistically diverse settings*. Southeastern Association for Science Teacher Education (SASTE), Kennesaw, GA.

Mathews, S., Hutchins, R., Morris-Orr, M., Martin-Hansen, L., & **Verma, G.** (2009). *MSP: Building a Partnership*. Paper presented at the Georgia State Teachers Association, Savannah, GA

**Verma, G.** (2005). *Emerging Issues and Trends in International Curriculum Discourse: Theoretical, Philosophical, and Pedagogical Positions*. Paper presented at the Sino-American Educational Consortium 16th Annual International Conference, Atlanta, GA.

**Verma, G.** (2005). *Incorporating instructional design strategy in the elementary science methods course: Shaping pre-service teachers' lesson-planning experiences to create inquiry opportunities*. Paper presented at the Southeastern Association for Science Teacher Education (SASTE), Athens, GA.

## **Other Presentations**

**Verma, G.** (2000, October) *Leaning cycle: pedagogy for teaching science*. Paper presented at the Graduate Student Senate Colloquium (GSS). Kent State University, Kent, OH.

**Verma, G.**, & Keller, D. (1999, March). *Professional development of science educators in India*. Paper presented at the Gerald H. Read Center for International and Intercultural Education, Kent State University, Kent, OH.

**Verma, G.**, & Gado, I. (1998, March). *Science, myths and superstitions: Implications for science education in India and Benin*. Paper presented at the Gerald H. Read Center for International and Intercultural Education, Kent State University, Kent, OH.

**Verma, G.**, Cravcenco, L., & Habashi, J. (1998, March). *K-12 education system and higher Education in India, Moldova and Palestine*. Paper presented at the Gerald H. Read Center for International and Intercultural Education, Kent State University, Kent, OH.

## **GRADUATE STUDENT ADVISEMENT**

### **Dissertation in Progress (Committee Member)**

Gardner, A., Doctoral Candidate. School of Education & Human Development | University of Colorado Denver

Grassley, C. Doctoral Candidate. School of Education & Human Development | University of Colorado Denver

Huvar, H. (Doctoral Student). School of Education & Human Development | University of Colorado Denver

### **Completed Doctoral Dissertation: Chair**

Bordeaux, B., Doctoral Student (successfully completed comprehensive exams), *Feminist science and STEM career experiences* | School of Education & Human Development | University of Colorado Denver | Transferred to the Ed.D. program after doctoral dissertation proposal defense

<sup>3</sup>Douglass, H. (2016). *Making the Invisible Visible: A Qualitative Study Providing Context of Women's STEM Experiences Through Visual Representation*. Unpublished doctoral dissertation, University of Colorado Denver

Lartson, C. (2013). *Effects of design-based science instruction on the science problem-solving skills among different groups of high-school traditional Chemistry students*. Unpublished doctoral dissertation, University of Colorado Denver (Co-Chair with Carole Basile)

McDowell, A. (2010). *An Exploration of Pre-Service Teachers' Use of Lesson Study as they Transition in Teaching Nature of Science Curriculum*. Unpublished doctoral dissertation, Georgia State University.

Parker, B. (2010). *The Influence of Nature of Science Understandings on Sixth-Grade Students' Science Self-Efficacy Beliefs*. Unpublished doctoral dissertation, Georgia State University.

Hoy, S. (2009). *Through Her Eyes: A Storied Life of a Latina from Scientist to Science Teacher*. Unpublished doctoral dissertation, Georgia State University.

Kinard, M. (2009). *Orchestrating Student Discourse Opportunities in High School Science Classrooms*. Unpublished doctoral dissertation, Georgia State University.

Webb, H. (2009). *Factors Affecting Construction of Science Discourse in the Context of an Extracurricular Science and Technology Project*. Unpublished doctoral dissertation, Georgia State University.

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<sup>3</sup> Recipient of 2016 outstanding doctoral dissertation award, School of Education and Human Development, University of Colorado, Denver

Kattoula, E. (2008). *Conceptual Change in Pre-Service Science Teachers' Views on Nature of Science when Learning a Unit on the Physics of Waves*. Unpublished doctoral dissertation, Georgia State University.

### **Completed Dissertations: Committee Member**

Russel, R. (2011). *Identifying complex cultural interactions in the instructional design process: A case study of a cross-border, cross-sector training for innovation program*. Unpublished doctoral dissertation, Georgia State University

Davis, B. (2008). *Investigating the experience: A case study of a science professional development program based on Kolb's experiential learning model*. Unpublished doctoral dissertation, Georgia State University

Philpot, C. (2007). *Science Olympiad students' nature of science understandings*. Unpublished doctoral dissertation, Georgia State University.

Bulunuz, N. (2006). *Understanding of earth and space science concepts: Strategies for concept building in elementary teacher*. Unpublished doctoral dissertation, Georgia State University.

Bernard, W. (2005). *Authentic research projects: Students' perspectives on the process, ownership, and benefits of doing research*. Unpublished doctoral dissertation, Georgia State University.

Roberts, W. (2004). *Science teacher worldviews and values regarding nature and the environment*. Unpublished doctoral dissertation. Unpublished doctoral dissertation, Georgia State University

### **Completed Master's Thesis or Portfolio (Chair)**

Guerrant, D., (2017). *Integrating Nature of Science in Middle Grades*. Master's thesis. School of Education & Human Development, University of Colorado Denver

Mueller, E. (2015). *Sustaining and Fostering a Child's Growth Mindset*. Master's thesis. School of Education & Human Development, University of Colorado Denver

Garcia, C. (2015). *Masters Students, Engaging Hispanics Females in Science*. Master's thesis. School of Education & Human Development, University of Colorado Denver

2003-2017 Advised over 55 additional master's students toward successfully completing their master's final project @ University of Colorado and @ Georgia State University

## **Guest Lecturer (Stockholm University, Sweden) | 2017**

Course 1: Equity and Access in Science Education

Course 2, 3, and 4: Scientific Method (Understanding and Myths)

Course 5: Making science accessible to multilingual learners: Formal and Informal

**College Teaching Experience** | ~ Indicates new course or significant revisions

\* Courses taught fully online

~\*SCED 5350 – Issues and Trends in Science Education

Graduate | School of Education and Human Development | University of Colorado Denver

~SCED 5/7500 – Nature of Science

Masters/Doctoral | School of Education and Human Development | University of Colorado Denver

~SCED 5/7 5340 – Equity and Culture in Science Education: Global and Local

Masters/Doctoral | School of Education and Human Development | University of Colorado Denver

~\*SCED 4400/5400 | Theory and Pedagogy of Science Instruction

Undergraduate/Graduate | School of Education and Human Development | University of Colorado Denver

~ SCED 4401/5401 | Inquiry Science Pedagogy and Practices

Undergraduate/Graduate | School of Education and Human Development | University of Colorado Denver

SCED 4404/5405 | Elementary Science Methods

Undergraduate/Graduate | School of Education and Human Development | University of Colorado Denver

UEDU 4010/5010 | Social Foundation and Cultural Diversity in Urban Education

Undergraduate/Graduate | School of Education and Human Development | University of Colorado Denver

~ANAT 6410 | Teaching in a Professional Program

Pre-med | School of Medicine | University of Colorado Denver

~EDSC 9870 – Advanced Research Seminar in Science Education

Doctoral | College of Education | Georgia State University

~EDCI 9850 | Research Seminar  
Doctoral | College of Education | Georgia State University

~EDCI 9900 | Critique of Educational Research (Science Education)  
Doctoral | College of Education | Georgia State University

~EDSC 8600 | Science in School Curriculum  
Masters | College of Education | Georgia State University

~EDSC 7/8550 | Trends and Issues in Teaching Science  
Masters | College of Education | Georgia State University

\*EDSC 8400 | Strategies of Instruction in Science  
Masters | College of Education | Georgia State University

Practicum I, II, III | Field Observation  
Masters | College of Education | Georgia State University

~EDCI 6600 | Introduction to Secondary Teaching  
Masters | College of Education | Georgia State University

~EDSC | 6550 Principles of Science Instruction  
Masters | College of Education | Georgia State University

~EDSC 4470 | Concepts/methods in Middle Childhood  
Undergraduate | College of Education | Georgia State University

M 83: Teaching Science in Elementary School  
Graduate | Loyola University | Chicago

M 83: Teaching Science in Elementary School (practicum)  
Graduate | Loyola University | Chicago

### **Curricular Materials Developed**

**eCALLMS Module Design Team.** (2015). *Science Inquiry: Engaging bilinguals in Scientific Questioning*. Online Professional Development Modules for Teachers of Multilingual Learners in Grades 5-8.

(Essential Question: Why does inquiry science especially benefit bilingual learners?)

**eCALLMS Module Design Team.** (2014). *The 5E Science Model for Multilingual Students*. Online Professional Development Module for Teachers of Multilingual Learners in Grades 3-5.

(Essential Question: How can I use the 5E Instructional/Planning Model to improve my science instruction to engage multilingual students more meaningfully in the development of science

knowledge and academic language?)

**eCALLMS Module Design Team.** (2014). *Language in the Multilingual Science Classroom*. Online Professional Development Module for Teachers of Multilingual Learners in Grades 3-5.

(Essential Question: How can I create a culturally and linguistically rich classroom environment in a science unit?)

**Science Teachers' Professional Development** | \* indicates presentations with students

Verma, G., & Martin-Hansen, L. (2009). *Using nature of science to illustrate the humanness of the scientific enterprise*. Rockdale County Public Schools workshop, January 20, Jonesboro, GA

Verma, G. (2008). *Introduction to the 5e learning cycle for conceptual change*. Workshop for Clayton County Public Schools, July 7, Jonesboro, GA

\*Verma, G., Kinard, M., & Davis, B. (2008). *Introducing and integrating history of science in content areas*. Workshop for Clayton County Public Schools. July 8, Jonesboro, GA

\*Verma, G., Kinard, M., & Davis, B. (2008). *Incorporating nature of science in the secondary science classroom*. Workshop for Clayton County Public Schools. July 9, Jonesboro, GA.

\*Verma, G., David, B., & Kinard, M. (2008). *Introduction to wikis: A tool for reflective teaching*. Workshop for Clayton County Public Schools. July 10, Jonesboro, GA.

Verma, G. (2008). *Using sheltered instruction for English Language Learners in the science classroom*. Workshop for Clayton County Public Schools. July 17, Jonesboro, GA.

Verma, G., & Martin-Hansen, L. (2009). *Using nature of science to illustrate the humanness of the scientific enterprise*. Rockdale County Public Schools workshop, January 20, Jonesboro, GA.

Verma, G. (2008). *Introduction to the 5e learning cycle for conceptual change*. Workshop for Clayton County Public Schools, July 7, Jonesboro, GA

\*Verma, G., Kinard, M., & Davis, B. (2008). *Introducing and integrating history of science in content areas*. Workshop for Clayton County Public Schools. July 8, Jonesboro, GA

\*Verma, G., Kinard, M., & Davis, B. (2008). *Incorporating nature of science in the secondary science classroom*. Workshop for Clayton County Public Schools. July 9, Jonesboro, GA.

\*Verma, G., David, B., & Kinard, M. (2008). *Introduction to wikis: A tool for reflective teaching*. Workshop for Clayton County Public Schools. July 10, Jonesboro, GA.

Verma, G. (2008). *Using sheltered instruction for English Language Learners in the science classroom*. Workshop for Clayton County Public Schools. July 17, Jonesboro, GA.

## **PROFESSIONAL SERVICE**

### **Co-Editorship**

*Journal of Science Teacher Education* | 2019 -2024

### **Associate Editorship**

*Journal of Research in Science Teaching* | 2017-2020

*Electronic Journal of Science Education* | 2011-2015

*Cultural Studies of Science Education* | 2014- 2019

### **Editorial Board Membership**

*Journal of Research in Science Teaching* | 2015 -2017

*Cultural Studies of Science Education* | Since 2015

*East West Education (EWE), Research Institute of Curriculum Instruction (RICI)* | Ewha Womans University, Seoul, South Korea | 2014-2017

*McGill Journal of Education (MJE)* | McGill University, Canada | 2013-2017

### **Leadership in National/International Organizations**

Member, Membership and Elections Committee, *National Association for Research in Science Teaching (NARST)* | 2014-2015

Reviewer, Jhumki Basu Scholars Program - Sponsored by Equity and Ethics Committee, *National Association for Research in Science Teaching (NARST)* conference | 2012

Organizer, Pre-Conference Workshop—Sponsored by Equity and Ethics Committee | 2011  
Equity Internationally – Scholarship, Research, and Service for a Global Science Education Community, *National Association for Research in Science Teaching (NARST)*, co-organized with Regina Wraggs

Member, Equity & Ethics Committee, *National Association for Research in Science Teaching (NARST)* | 2010-2013

Chair, Program Committee, Strand 11: Cultural, Social, and Gender Issues, *National Association for Research in Science Teaching (NARST)* | 2011 -2012

Co-chair, Program Committee, Strand 11: Cultural, Social, and Gender Issues, *National Association for Research in Science Teaching* (NARST) | 2010- 2011

Chair, Science Teaching and Learning Special Interest Group (STL-SIG), *American Education Research Association* (AERA) | 2008 - 2010

Director, Southeast Association for Science Teacher Education (SASTE) for the *Association of Science Teacher Education* (ASTE) | 2006-2009

Program Chair, Science Teaching and Learning Special Interest Group (STL-SIG), *American Education Research Association* | 2006 -2007

### **Manuscript Reviewing**

*Journal of Research in Science Teaching* | 2000-2015

*Journal of Science Teacher Education* | 2010-2015

*Science Education* | 2007-Current

*American Education Research Journal (AERJ-TLHD)* | 2011-2012

*Journal of Science Education and Technology* | 2010-2012

*Science Scope* | 2010-Current

### **Conference Proposal Reviewer**

*American Education Research Association* | Since 1999

*National Association for Research in Science Teaching* | Since 2002

*Association of Science Teachers Association* | Since 2003

### **Institution Leadership roles**

@ University of Colorado Denver

Member, Faculty Assembly, University of Colorado Denver | 2017-2020

Member, Doctoral Faculty, School of Education and Human Development | Current-2017

Chair, Doctoral Faculty, School of Education and Human Development | 2016 (Spring)

Member, Executive Committee (appointed by the Dean), Doctoral Degree Affiliate Program, School of Education and Human Development | 2013 -2015

Member, Annual Merit Review Committee, Tenure/Tenure-Track, School of Education and Human Development –elected position | 2014-2017

Member, Reappointment, Tenure, and Promotion (RTP) committee, School of Education and Human Development – elected position | 2012-2015

STEM Program Lead, School of Education and Human Development, University of Colorado Denver, School of Education and Human Development | 2012 -2014

Promotion and Tenure Review Committee (invited), College of Liberal Arts and Science, University of Colorado Denver | 2011

@ Georgia State University

Science Education Unit Chair, Department of Middle, Secondary Education and Instructional Technology, College of Education | 2008 -2010

Science Education Unit Chair, Division of Mathematics and Science Education, College of Education | 2007- 2008

MAT Science coordinator, Division of Mathematics and Science Education, College of Education | 2006-2007

@ Loyola University Chicago

Assistant Director, Center for Science Education, Loyola University Chicago, Chicago, IL | 2002-2003

### **Search Committees**

@ University of Colorado Denver

Committee Member, search committee for a tenured/senior position in the LEO program School of Education and Human Development | 2019-2020

@ University of Colorado Denver

Committee Member, Search Committee for the Director of Center for Teaching and Learning, Chaired by Dr. Brenda Allen, Vice-Provost, Diversity | 2015

@ University of Colorado Denver

Committee Member, search committee for a tenured/senior position in Urban Community and Teacher Education (UCTE) program School of Education and Human Development | 2014

@ Georgia State University

Co-chair, search committee for one tenure-track positions in science education, College of Education | 2007-2008

Co-chair, search committee for two tenure-track positions in science education, Division of Mathematics and Science Education, College of Education | 2005-2007

Chair, Search committee for one tenure-track position in science education, Division of Mathematics and Science Education, College of Education | 2005-2006

Co-chair, search committee for two joint tenure-track positions in science education, MSIT and ECE, COE, College of Education | 2004-2005

### **Graduate Faculty Appointment**

@ University of Colorado Denver | from 2010

@ Georgia State University | 2003-2010

### **Outreach activities**

@ Community Latinx Church

Advisory board member | 2019-Ongoing

@ University of Colorado Denver

Judge, Metro Denver Area Regional Science Fair, Denver, CO

Professional Development Workshop for Teachers, Columbine Elementary School, Park Hill, Denver, CO

@ Georgia State University

Judge, Annual Essay Contest (Respect for Human Dignity), Istanbul Center for Culture and Dialogue, Atlanta, GA

Founder and Faculty Advisor, Association of International Students in Education, College of Education, Georgia State University, GA

Guest speaker, EDLA 8330: Language Variations and Learning

@ Loyola University Chicago

Founder and Faculty advisor, Association for International Students in Education (AISE), School of Education, Loyola University Chicago, IL

Faculty advisor, Indian Graduate Student Association (IGSA), Loyola University Chicago, Chicago, IL

Chair, International committee, School of Education, Loyola University Chicago, Chicago, IL

### **Professional Memberships**

American Education Research Association (AERA)

Association for Science Teacher Education (ASTE)

National Association for Research in Science Teaching (NARST)

National Science Teachers Association (NSTA)