P. SEAN SMITH

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EDUCATION:

Degrees	Date	University	Major
Ph.D.	1994	University of North Carolina, Chapel Hill, NC	Curriculum and Instruction
M.A.T.	1985	University of North Carolina, Chapel Hill, NC	Science
B.A.	1984	University of North Carolina, Chapel Hill, NC	Chemistry

PROFESSIONAL APPOINTMENTS:

Dates	Institution	Title
2026 to present	Self-employed	Consultant
2024–2026	Horizon Research, Inc., Chapel Hill, NC	Senior Executive Director
2013–2024	Horizon Research, Inc., Chapel Hill, NC	President
1998–2012	Horizon Research, Inc., Chapel Hill, NC	Senior Research Associate
1995–1998	Horizon Research, Inc., Chapel Hill, NC	Consultant
1995–1998	Berea College, Berea, KY	Assistant Professor of Education Studies
1991–1995	Horizon Research, Inc., Chapel Hill, NC	Research Associate
1989–1991	University of North Carolina, Chapel Hill, NC	Graduate Assistant
1985–1989	Winston-Salem/Forsyth County Schools, Winston-Salem, NC	High School Chemistry and Physics Teacher

Books

Ford, B. A., & Smith, P. S. (2000). *Project Earth Science: Physical oceanography* (2nd ed.). National Science Teachers Association.

Smith, P. S., & Ford, B. A. (1999). *Project Earth Science. Meteorology* (2nd ed.). National Science Teachers Association.

Smith, P. S. (1992). *Project Earth Science: Astronomy*. National Science Teachers Association.

Book Chapters

Banilower, E. R., Trygstad, P. J., & Smith, P. S. (2015). The first five years: What the 2012 national survey of science and mathematics education reveals about novice science teachers and their teaching. In J. A. Luft & S. L. Dubois (Eds.), *Newly hired teachers of science: A better beginning* (pp. 3–30). Sense Publishers.

Smith, P. S., Plumley, C. L., Hayes, M. L., & Esch, R. K. (2018). Personal and Canonical PCK: A Synergistic Relationship? In S. Graves, M. Harford, R. Thompson, E. Shay, & S. Uzzo (Eds.), *Pedagogical Content Knowledge in STEM* (pp. 49–66). Springer.

Smith, P. S., & Banilower, E. R. (2015). Assessing pedagogical content knowledge: A new application of the uncertainty principle. In A. Berry, P. Friedrichsen, & J. Loughran (Eds.), *Re-examining Pedagogical Content Knowledge in Science Education* (pp. 88–103). Routledge Press.

Smith, P. S., Smith, A. A., & Banilower, E. R. (2014). Situating beliefs in the theory of planned behavior: The development of the teacher beliefs about effective science teaching questionnaire. In C. M. Czerniak, R. Evans, J. Luft, & C. Pea (Eds.), *The role of science teachers' beliefs in international classrooms: From teacher actions to student learning* (pp. 81–102). Sense Publishers.

Journal Articles

Arias, A. M., Smith, P. S., Davis, E. A., Marino, J.-C., & Palincsar, A. S. (2017). Justifying Predictions: Connecting Use of Educative Curriculum Materials to Students' Engagement in Science Argumentation. *Journal of Science Teacher Education*, *28*(1), 11–35.

Carrier, S. J., Scharen, D., Hayes, M., Smith, P. S., Goforth, C., Craven, L., & Sachs, L. (2026). Incorporating Participatory Science in Elementary Schools: Teacher and Student Experiences with Outdoor Learning. *The Electronic Journal for Research in Science & Mathematics Education*, *29*(4), 81–101.

Carrier, S. J., Sachs, L. H., McGowan, J. M., Hayes, M., Smith, P. S., Goforth, C. L., & Safley, S. E. (2024). Elementary teachers as collaborators: Developing educative support materials for citizen science projects. *International Journal of Science Education*, *47*(1), 107–127. https://doi.org/10.1080/09500693.2024.2311801

Carrier, S. J., Scharen, D. R., Hayes, M. L., Smith, P. S., Craven, L. M., McGowan, J. M., Goforth, C. L., Bruce, A. D., Safley, S. E., & Sachs, L. H. (2024). *Incorporating citizen science in elementary schools: Teacher and student experiences with outdoor learning*.

Carrier, S. J., Scharen, D. R., Hayes, M., Smith, P. S., Bruce, A., & Craven, L. (2024). Citizen science in elementary classrooms: A tale of two teachers. *Frontiers in Education*, *9*. https://doi.org/10.3389/feduc.2024.1470070

Davis, E. A., Palincsar, A. S., Smith, P. S., Arias, A. M., & Kademian, S. M. (2017). Educative curriculum materials: Uptake, impact, and implications for research and design. *Educational Researcher*, *46*(6), 293–304.

Hayes, M. L., Smith, P. S., & Midden, R. M. (2020). Students as citizen scientists: It's elementary. *Science and Children*, *57*(9), 60–64.

McGowan, J. M., Sachs, L. H., Bruce, A. D., Scharen, D. R., Hayes, M. L., & Smith, P. S. (2025). Citizen science in the elementary classroom: Going beyond data collection. *Science and Children, 62(*4), 22-30.

Pasley, J. D., Weiss, I. R., Shimkus, E. S., & Smith, P. S. (2004). Looking Inside the Classroom: Science Teaching in the United States. *Science Educator*, *13*(1), 1–12.

Price, E., Lau, A. C., Goldberg, F., Turpen, C., Smith, P. S., Dancy, M., & Robinson, S. (2021). Analyzing a faculty online learning community as a mechanism for supporting faculty implementation of a guided-inquiry curriculum. *International Journal of STEM Education*, *8*(1), 1–26.

Scharen, D. R., McInerney, E., Sachs, L. H., Hayes, M. L., & Smith, P. S. (2025). Fostering mathematics engagement through school-based citizen science activities. *Mathematics Teacher: Learning and Teaching PK-12, 118*(6), 425-436.

Scharen, D. R., Goforth, C. L., Sachs, L. H., Safley, S. E., & Smith, P. S. (in press). From data collection to curriculum integration: How teachers use citizen science projects in elementary classrooms. *The Electronic Journal of Science and Mathematics Education*.

Smith, P. S., Peterson, E. S., Carrier, S. J., Goforth, C. L., Hayes, M. L., Sachs, L. H., Scharen, D. R., Bruce, A. D., Craven, L. M., Mcgowan, J. M., & Safley, S. E. (2026). Elementary teachers' use of educative support materials for citizen science projects: Affordances, obstacles, and impacts. *International Journal of Science Education*, *0*(0), 1–21. https://doi.org/10.1080/09500693.2026.2683073

Smith, P. S., Goforth, C. L., Carrier, S. J., Hayes, M. L., & Safley, S. E. (2025). An emerging theory of school-based participatory science. *Citizen Science: Theory and Practice*, *10*(1). https://doi.org/10.5334/cstp.755

Smith, P. S. (2020). What Does a National Survey Tell Us about Progress toward the Vision of the NGSS? *Journal of Science Teacher Education*, *31*(6), 601–609. https://doi.org/10.1080/1046560X.2020.1786261

Smith, P. S., Hayes, M. L., & Lyons, K. M. (2017). The ecology of instructional teacher leadership. *The Journal of Mathematical Behavior*, *46*, 267–288.

Smith, P. S., Plumley, C. L., & Hayes, M. L. (2017). Much ado about nothing: How children think about the small-particle model of matter. *Science and Children*, *54*(8), 74–80.

Smith, P. S., Torsiglieri, J. A., Esch, R. K., & Pasley, J. D. (2017). When 'we wish they knew' meets 'I want to know.' *International Journal of Science Education*, *39*(13), 1830–1845.

Smith, P. S., Trygstad, P. J., & Banilower, E. R. (2016). Widening the gap: Unequal distribution of resources for K–12 science instruction. *Education Policy Analysis Archives*, *24*(8), 1–42.

Smith, P. S., Trygstad, P. J., & Hayes, M. L. (2016). Social network analysis: A simple but powerful tool for identifying teacher leaders. *International Journal of Leadership in Education*, *0*(0), 1–9. https://doi.org/10.1080/13603124.2016.1195016

Smith, P. S., & Wickwire, M. (2009). Virginia's mathematics specialist institute project: A summary of evaluation findings. *The Journal of Mathematics and Science: Collaborative Explorations*, *11*, 127–139.

Smith, P. S., Hounshell, P. B., Copolo, C., & Wilkerson, S. (1992). The impact of end-of-course testing in chemistry on curriculum and instruction. *Science Education*, *76*(5), 523–530.

Taylor, M., Cohen, K., Esch, R. K., & Smith, P. S. (2012). Investigating students' ideas about the flow of matter and energy in living systems. *Science Scope*, *35*(8), 26–36.

Taylor, M., & Smith, S. (2009). How do you know if they're getting it? Writing assessment items that reveal student understanding. *Science Scope*, *32*(5), 60–64.

Conference Presentations

Banilower, E. R., Hayes, M. L., Smith, P. S., & Trygstad, P. J. (2019). *Obstacles to and progress toward the vision of the NGSS*. Annual Meeting of the National Association for Research

in Science Teaching, Baltimore, MD. http://horizon-research.com/NSSME/wp-content/uploads/2019/09/NARST_NGSS_NSSME.pdf

Banilower, E. R., Nelson, M. M., Trygstad, P. J., Smith, A. A., & Smith, P. S. (2013). *Instructional Materials to Support the Next Generation Science Standards: Results of a Proof-of-Concept Study*. National Association for Research in Science Teaching, Rio Grande, PR.

Carrier, S.J. Goforth, C.L., Smith, P.S., Scharen, D.R, Hayes, M.L., Craven, L., McGowan, J. Bruce, A., Safley, S.E., Sachs, L., Peterson, E. (2025, April. 29). *Teacher learning for effective school-based citizen science.* National Oceanic and Atmospheric Association (NOAA), Webinar.

Carrier, S. J., Scharen, D. R., Smith, P. S., Goforth, C. L., Hayes, M. L., Safley, S. E., & Peterson, E. S. (2025, March). *Citizen Science Supports for Elementary School Teachers: Connecting Science Across Disciplines*. National Association for Research in Science Teaching, National Harbor, MD.

Carrier, S. J., McGowan, J. M., Smith, P. S., Goforth, C. L., Hayes, M. L., Sachs, L. H., Safley, S. E., Bruce, A. D., & Scharen, D. R. (2024). *Incorporating Citizen Science in Elementary Schools: Teacher and Student Experiences with Outdoor Learning*. Coalition for Education in the Outdoors, Black Mountain, NC.

Carrier, S. J., Smith, P. S., McGowan, J. M., Sachs, L. H., Hayes, M. L., Safley, S. E., Goforth, C. L., & Scharen, D. R. (2024). *Elementary School Teachers' Use of Educative Support Curricula: Citizen Science Projects in Science Instruction*. National Association for Research in Science Teaching, Denver, CO.

Carrier, S. J., McGowan, J. M., Sachs, L. H., Hayes, M. L., & Smith, P. S. (2023). *Elementary Teachers as Collaborators: Developing Educative Support Materials for Citizen Science Projects*. National Association for Research in Science Teaching, Chicago, IL.

Carrier, S. J., McGowan, J. M., Smith, P. S., Goforth, C. L., Sachs, L. H., Hayes, M. L., Safley, S. E., & Scharen, D. R. (2023). *Supporting Elementary Teachers' Citizen Science Instruction*. NAAEE Research Symposium, Virtual.

Carrier, S. J., McGowan, J. M., Smith, P. S., Sachs, L. H., Goforth, C. L., Hayes, M. L., & Safley, S. E. (2023). *Elementary Teachers' Implementation of Citizen Science in their Classrooms using Educative Support Materials*. Association for Science Teacher Education, New Orleans, LA.

Carrier, S. J., Goforth, C. L., & Smith, P. S. (2022). *It's Raining Ladybugs! Supporting Elementary Teachers' Citizen Science*. North American Association for Environmental Education, Tucson, AZ.

Goforth, C. L., Carrier, S.J., & Smith, P.S. (2026, May 26–29). The year after: Teachers' use of participatory science after research incentives are withdrawn. Conference for Advancing Participatory Science (CAPS), Virtual.

Goforth, C.L, Carrier, S., Smith, P.S. (2025, May 27–30). *Developing high-quality teacher support material for school-based participatory science - full day workshop.* Conference for Advancing Participatory Science. (CAPS). Portland, OR.

Goforth, C. L., Smith, P. S., Carrier, S. J., & Hayes, M. L. (2024, June 3). *An Emerging Theory of School-Based Citizen Science*. 2024 Conference for Advancing the Participatory Sciences, Virtual.

McGowan, J. M., Carrier, S. J., Smith, P. S., Goforth, C. L., Sachs, L. H., Hayes, M. L., Safley, S. E., & Scharen, D. R. (2023). *Students as Scientists: How Citizen Science Intersects with Outdoor Learning*. NAAEE Research Symposium, Virtual.

Passmore, C., Krist, C., Buell, J., Griesemer, C., Hug, B., McNeill, K. L., Smith, P. S., & Reiser, B. (2024). *A Symposium Applying Conjecture Mapping to Learn From Design Tensions in Curriculum-Based Professional Learning*. 97th NARST International Conference, Denver, CO.

Scharen, D. R., Goforth, C. L., Sachs, L. H., & Smith, P. S. (2026, May 26–29). Data collection to curriculum integration: *How K-5 teachers use citizen science projects.* Conference for Advancing Participatory Science (CAPS), Virtual.

Smith, A. A., Banilower, E. R., Nelson, M. M., & Smith, P. S. (2013, April 8). *The status of secondary science teaching: Factors that predict teachers' practice*. National Association for Research in Science Teaching, Puerto Rico.

Smith, P. S., Carrier, S. J., Goforth, C. L., & Sachs, L. H. (2026, April 19–22). *Teachers' persistence with a science education innovation after research incentives and accountability are withdrawn.* NARST, Seattle, WA.

Smith, P. S., Goforth, C. L., Carrier, S. J., Hayes, M. L., Safley, S. E., & Scharen, D. R. (2025, March). *An Emerging Theory of School-Based Participatory Science*. National Association for Research in Science Teaching, National Harbor, MD.

Smith, P. S., & Carrier, S. J. (2024). *Citizen Science in Elementary Classrooms: A Tale of Two Teachers*. National Association for Research in Science Teaching, Denver, CO.

Smith, P. S., & Trygstad, P. J. (2021). *Responding to a Global Pandemic: The Role of K–12 Science Teachers*. 2021 AERA Annual Meeting, Virtual.

Smith, P. S., & Trygstad, P. J. (2021). *Responding to a Global Pandemic: The Role of K–12 Science Teachers*. 2021 DRK-12 PI Meeting, Virtual.

Smith, P. S., Trygstad, P. J., & Craven, L. M. (2021). *Responding to a Global Pandemic: The Role of K–12 Science Teachers*. 2021 NARST Annual International Conference, Virtual.

Smith, P. S., Plumley, C. L., & Hayes, M. L. (2017). *Eliciting elementary teachers' PCK for the small particle model*. Annual International Conference of the National Association for Research in Science Teaching, San Antonio, TX.

Smith, P. S., Esch, R. K., & Egeland, N. M. (2016). *How science teachers responded to Ebola: A national study of teacher instructional decision making.* NARST Annual International Conference, Baltimore, MD.

Smith, P. S., Esch, R. K., Hayes, M. L., & Plumley, C. L. (2016, April). *Developing and testing a method for collecting and synthesizing pedagogical content knowledge*. 2016 NARST Annual International Conference, Baltimore, MD.

Smith, P. S., & Moffett, G. (2015). Back to the future: When full-time instructional leaders return to the classroom. *2015 Annual Meeting of the American Educational Research Association*.

Smith, P. S., & Smith, A. A. (2014). *Investigating the impacts of educative curriculum materials: A quantitative perspective*. NARST Annual International Conference, Pittsburgh, PA.

Smith, P. S., Nelson, M. M., Trygstad, P. J., & Banilower, E. R. (2013, April). *Unequal distribution of resources for K–12 science instruction: Data from the 2012 National Survey of Science and Mathematics Education*. National Association for Research in Science Teaching, Puerto Rico.

Smith, P. S., & Esch, R. K. (2012, April). *Identifying and measuring factors related to student learning: The promise and pitfalls of teacher instructional logs*. 2012 Annual Meeting of the American Educational Research Association.

Smith, P. S. (2010, January). *Using ATLAST instruments to study the relationships among teacher knowledge, classroom instruction, and student learning*. Math Science Partnership Learning Network Conference, Washington, DC.

Smith, P. S. (2010, March). *New tools for investigating the relationship between teacher content knowledge and student learning*. National Association for Research in Science Teaching, Philadelphia, PA.

Smith, P. S. (2009, April). *Exploring the relationship between teacher content knowledge and student learning*. 2009 NARST Annual Conference, Garden Grove, CA.

Smith, P. S. (2009, July). *Measuring content knowledge of middle grades teachers*. AAPT Summer Meeting, Ann Arbor, MI.

Smith, P. S. (2008a). *How Do You Know If They're Getting It? Writing Assessment Items That Reveal Student Understanding*. 2008 Conference on the Preparation of Physics and Physical Science Teachers, Austin, TX.

Smith, P. S. (2008). *How Do You Know Whether They Are Learning What You Want Them to Learn?* Science Education and Workforce Development: Key Challenges for Innovation in the States, Washington, DC.

Smith, P. S. (2008). *The Importance of Teacher Content Knowledge for Student Learning*.

Smith, P. S. (2006). *New Tools for Assessing Impacts on Teacher Knowledge for Science Teaching*. Mathematics and Science Partnership Program Regional Conference I, Orlando, FL.

Smith, P. S. (2005). *Evaluating Professional Development: A New Tool for Assessing Impacts on Teacher Knowledge for Science Teaching*. NSF/ED MSP State Coordinators' Meeting, Washington, DC.

Smith, P. S., & Wood, K. (2006). *New Tools to Assess Teacher Content Knowledge for Science Teaching*. Math Science Partnership Learning Network Conference, Washington, DC.

Smith, P. S., Ford, B. A., Taylor, M. J., & Wood, K. (2005). *Assessing Science Content Knowledge of Middle School Teachers*. Math Science Partnership Learning Network Conference, Washington, DC.

Smith, P. S., Pasley, J. D., & Ford, B. A. (2004). *Assessing Teacher Learning in Science*. Math Science Partnership Learning Network Conference, Washington, DC.

Trygstad, P. J., Smith, P. S., Banilower, E. R., & Nelson, M. M. (2013, April). *The status of elementary science education: Are we ready for the Next Generation Science Standards?* National Association for Research in Science Teaching, Puerto Rico.

Trygstad, P., Smith, P. S., Davis, E. A., & Palincsar, A. (2012). *Assessment Tools for Studying the Effect of Educative Curriculum Materials*. National Association for Research in Science Teaching, Indianapolis, IN.

Reports

Banilower, E. R., Smith, P. S., Malzahn, K. A., Plumley, C. L., Gordon, E. M., & Hayes, M. L. (2018). *Report of the 2018 NSSME+*. Horizon Research, Inc.

Banilower, E. R., Smith, P. S., Weiss, I. R., Malzahn, K. A., Campbell, K. M., & Weis, A. M. (2013). *Report of the 2012 National Survey of Science and Mathematics Education*. Horizon Research, Inc.

Esch, R. K., & Smith, P. S. (2019). *Advancing Success in STEM Undergraduate Research and Education (ASSURE) Annual Evaluation Report*. Horizon Research, Inc.
Hayes, M. L., Smith, P. S., & Midden, W. R. (2020). *Factors affecting teachers' decisions to integrate citizen science into classroom instruction*. Horizon Research, Inc.
Hayes, M. L., Plumley, C. L., Smith, P. S., & Esch, R. K. (2017). *A Review of Practice-Based Literature on Teaching about Interdependent Relationships in Ecosystems to Elementary Students*. Horizon Research, Inc.
Hayes, M. L., Plumley, C. L., Smith, P. S., & Esch, R. K. (2017). *A Review of the Research Literature on Teaching about Interdependent Relationships in Ecosystems to Elementary Students*. Horizon Research, Inc.
Heck, D., Smith, S., Taylor, M., & Dyer, E. (2007). *Review of empirical research on teachers' mathematics and science content knowledge and its effects on teaching practice and student outcomes.* Horizon Research, Inc.
Smith, P. S., Plumley, C. L., Craven, L. M., Harper, L., & Sachs, L. (2022). *K–12 Science Education in the United States: A Landscape Study for Improving the Field*. Carnegie Corporation of New York. https://www.carnegie.org/publications/k12-science-education-in-the-united-states-a-landscape-study-for-improving-the-field/
Smith, P. S. (2020). *Obstacles to and progress toward the vision of the NGSS.* Horizon Research, Inc. https://horizon-research.com/NSSME/2018-nssme/research-products/reports/ngss-obstacles-progress
Smith, P. S. (2020). *2108 NSSME+: Trends in U.S. science education from 2012 to 2018*. Horizon Research, Inc.
Smith, P. S. (2019). *The 2018 NSSME+: Trends from 2012 to 2018*. Horizon Research, Inc.
Smith, P. S. (2019). *Trends in K-12 science education from 2012 to 2018: Data from the 2018 NSSME+*. Horizon Research, Inc.
Smith, P. S., & Craven, L. M. (2019). *Science education in self-contained and non-self-contained elementary science classes: Comparisons of instruction and teachers in the two settings*. Horizon Research, Inc. https://horizon-research.com/NSSME/2018-nssme/research-products/reports/sc-and-nsc-science
Smith, P. S., & Plumley, C. L. (2016). *A Review of the Research Literature on Teaching about the Small Particle Model of Matter to Elementary Students*. Horizon Research, Inc.
Smith, P. S. (2013). *The 2012 National Survey of Science and Mathematics Education: Status of high school chemistry*. Horizon Research, Inc. http://www.horizon-research.com/2012nssme/wp-content/uploads/2013/09/2012-NSSME-Status-of-High-School-Chemistry.pdf
Smith, P. S., Torsiglieri, J. A., Pasley, J. D., & Esch, R. K. (2016). *Stopping an Epidemic of Misinformation: How K–12 Science Teachers Responded to Ebola—Technical Report*. Horizon Research, Inc.
Smith, P. S., & Trygstad, P. J. (2013). *The Albert Einstein Distinguished Educators Fellowship Program: Developing the Next Generation of STEM Education Leaders*. Horizon Research, Inc.
Smith, P. S., & Corbell, K. (2010). *Investigating and questioning our world through science and technology (IQWST): Year 5 report*. Horizon Research, Inc.
Smith, P. S. (2002). *The Status of High School Chemistry Teaching*. Horizon Research, Inc.
Smith, P. S., Banilower, E. R., McMahon, K. C., & Weiss, I. R. (2002). *The National Survey of Science and Mathematics Education: Trends from 1977 to 2000*. Horizon Research, Inc.

Smith, P. S., & Wingard, K. C. (2019). *Next Generation Physical Science and Everyday Thinking Faculty Online Learning Community: Annual Evaluation Report Year Three.* Horizon Research, Inc.

Trygstad, P. J., Craven, L. M., & Smith, P. S. (2023). *Science Teachers as Public Health Educators: How the COVID Pandemic Reshaped the Roles and Experiences of K–12 Science Teachers*. Horizon Research, Inc.

Trygstad, P. J., Harper, L. A., Bruce, A. D., Safley, S. E., & Smith, P. S. (2023). *Teaching Science During the COVID Pandemic: K-12 Teachers Tell Their Stories*. Horizon Research, Inc.

Trygstad, P. J., & Smith, P. S. (2022). *Science Teachers as Public Health Educators: The Critical Role of K–12science Teachers in Communicating Accurate Information About SARS-CoV-2 and COVID-19*. Horizon Research, Inc.

Trygstad, P. J., Smith, P. S., & Craven, L. M. (2021). *Responding to a Global Pandemic: The Role of K–12 Science Teachers—Technical Report*. Horizon Research, Inc.

Weiss, I. R., Banilower, E. R., McMahon, K. C., & Smith, P. S. (2001). *Report of the 2000 National Survey of Science and Mathematics Education*. Horizon Research, Inc.

Weiss, I. R., Matti, M. C., & Smith, P. S. (1994). *Report of the 1993 national survey of science and mathematics education*. Horizon Research, Inc.

Weiss, I. R., Pasley, J. D., Smith, P. S., Banilower, E. R., & Heck, D. J. (2003a). *Highlights Report—Looking Inside the Classroom: A Study of K-12 Mathematics and Science Education in the United States*. Horizon Research, Inc.

Weiss, I. R., Pasley, J. D., Smith, P. S., Banilower, E. R., & Heck, D. J. (2003b). *Looking Inside the Classroom: A Study of K-12 Mathematics and Science Education in the United States*. Horizon Research, Inc.

Weiss, I. R., Smith, P. S., & Malzahn, K. A. (2001). *The Presidential Award for Excellence in Mathematics and Science Teaching: Results from the 2000 National Survey of Science and Mathematics Education*. Horizon Research, Inc.

SELECTED GRANTS

PI: **P. Sean Smith**, Co-PI(s): Sarah Carrier, Christine Goforth, *Supporting Elementary Teacher Learning for Effective School-Based Citizen Science (TL4CS)*, Discovery Research K-12, National Science Foundation, $1,995,538

PI: **P. Sean Smith**, Co-PI(s): Peggy Trygstad, *RAPID: Responding to a Global Pandemic--The Role of K-12 Science Teachers*, Discovery Research K-12, National Science Foundation, $171,208

PI: **P. Sean Smith**, Co-PI(s)s Gwendolyn Moffett, *School and District Utilization of Mathematics Specialists Who Have Returned to the Classroom*, Discovery Research K-12, National Science Foundation, $160,142

PI: **P. Sean Smith**, Co-PI(s): Joan Pasley, *Stopping an Epidemic of Misinformation: Leveraging the K-12 Science Education System to Respond to Ebola*, Discovery Research K-12, National Science Foundation, $199,430

PI: **P. Sean Smith**, Co-PI(s): Robert Esch, Courtney Plumley, *Knowledge Assets to Support the Science Instruction of Elementary Teachers (ASSET)*, Discovery Research K-12, National Science Foundation, $442,834

PI: **P. Sean Smith**, Co-PI(s): Iris Weiss, *Assessing Teacher Learning About Science Teaching*, MSP, National Science Foundation, $3,144,790

PI: Eric Banilower, Co-PI(s)s: Iris Weiss, **P. Sean Smith**, Eric Banilower, *Assessing the Impact of the MSPs: K-8 Science (AIM: K-8 Science)*, MSP, National Science Foundation, $1,919,910

PI: Eric Banilower, Co-PI(s)s: **P. Sean Smith**, Daniel Heck, Kristen Malzahn, *The 2018 NSSME+*, Discovery Research K-12, National Science Foundation, $3,077,649

PI: Elizabeth Davis, Co-PI(s)s: Annemarie Palincsar, **P. Sean Smith**, *Contextual Research - Empirical -STEM Teaching and Learning - Investigating Teachers' Learning, Practice, and Efficacy Using Educative Curriculum Materials,* REAL, National Science Foundation, $1,488,398

PI: Eric Banilower, Co-PI(s)s: Iris Weiss, **P. Sean Smith**, *2012 National Survey of Science and Mathematics Education*, REAL, Discovery Research K-12, National Science Foundation, $2,022,362

SERVICE

Grant review: Multiple NSF review panels.

NARST conference proposal reviewer: 2009 to present.

Steering Committee Member: National Academies of Science, Engineering, and Medicine *Collaborative for Advancing Science Teaching and Learning in K-12* (CASTL–K12). 2024 to present.