



# Janice L. Anderson

Associate Professor of Science Education, School of Education, University of North Carolina at Chapel Hill

## Curriculum Vitae

### **WORK:**

Peabody Hall 3028C  
CB #3500  
Chapel Hill, North Carolina  
27599-3500  
T 919.843.9867

**Email:** [anderjl@email.unc.edu](mailto:anderjl@email.unc.edu)

**Website:** <http://soe.unc.edu/anderson/~anderjl/Home.html>

### **Education**

#### **Ph.D. – Curriculum and Instruction**

**Lynch School of Education, Boston College; Chestnut Hill, MA - 2003- 2008**

Department of Curriculum and Instruction with a focus on Science and Technology in the Science, Math and Technology Strand

#### **M.S. – Teacher Education**

**University of Dayton; Dayton, Ohio - 1989-1992**

Focus on Science Education and Curriculum Development

**B.A., Case Western Reserve University; Cleveland, Ohio - 1982-1986**

B.A. Biology, Minor - History

### **Professional Experience**

**University of North Carolina at Chapel Hill School of Education, 2008-present**

Assistant Professor, Science Education

**Boston College, Lynch School of Education – Chestnut Hill, Massachusetts - 2003-2008**

Graduate Teaching and Research Assistant

**Chaminade Julianne Catholic High School – Dayton, Ohio - 1992-2003**

Biology Teacher

**Northmont City Schools – Clayton, Ohio – 1991-1992**

Substitute Teacher

**University of Dayton, School of Education – Dayton, Ohio - 1990-1992**

Graduate Research Assistant

**University of Cincinnati College of Medicine, 1986-1990**

Research Assistant Department of Anatomy and Cell Biology and Department of Ob-Gyn

**Selected Honors and Awards**

**Nominated – Provost's Award for Engaged Scholarship 2016**

**Nominated – Robert E. Bryan Public Service Award 2016**

**Society of Information Technology and Teacher Education – Conference Outstanding Paper Award**  
2015 – Las Vegas, Nevada

**Society of Information Technology and Teacher Education – Conference Outstanding Paper Award**  
2014 – Jacksonville, Florida

**International Society of Learning Sciences (ISLS) / International Conference of Learning Sciences (ICLS) NSF  
New Faculty Pre-Conference Seminar Award –**  
2010 – Chicago, Illinois

**American Educational Research Association – Division K – New Faculty Seminar**  
2010 – Denver, Colorado

**Quest Atlantis International Consortium on Games in Education**  
2008 - 2010

**American Educational Research Association – Division K Doctoral – Pre-Conference Seminar**  
2007 – Chicago Illinois

**Boston College Teaching and Research Fellowship, Boston College**  
2003 - 2008  
Fellowship given to graduate students to support the development of their research and teaching skills.

**Hugh Hildebrandt Award for Outstanding Contribution to Science Education**  
2003  
Award given to the outstanding science educator in Montgomery, Greene, and Miami Counties in Ohio.

**Governor's Award for Excellence in Science Education**  
1994, 1995, 1996, 1997, 1998, 1999, 2001, 2002, 2003  
Award for excellence in science education and the development of student research in the classroom.

**Pfizer Leadership Institute in Human and Molecular Genetics at Cold Spring Harbor Laboratory**  
Summer 2001  
One of twenty science educators selected nationally to participate in this intensive summer program.

**Bibliography and Products of Scholarship**

**Book Chapters**

Greene, J.G., Anderson, J.L., O'Malley, C.E. & Lobczowski, N.G (2018). Fostering Self-Regulated Science Inquiry in Physical Sciences. In DiBenedetto, M.K. (Ed.) *Connecting Self-Regulated Learning and Performance with Instruction Across High School Content Areas*.

Minshew, L. M., Horner, M., & Anderson, J. L. (2017). Technology integration in urban middle school classrooms: How does culturally relevant pedagogy support 1:1 technology implementation? In S. Pennell, A. Boyd, H. Parkhouse, & A. LaGarry (Eds.), *Possibilities of practice: Social justice teaching in the disciplines* (pp. 133-144). New York, NY: Peter Lang.

- Minshew, L.M., & Anderson, J.L. (2017). Integrating iPads in Middle School Science Instruction: A Case Study. In Keengwe, S. & Bull, P. (Eds.), *Handbook of Research on Transformative Digital Content and Learning Technologies*. Hershey, PA: IGI Global Press. (Refereed)
- Dragnic-Cindric, D., Barrow, E. & Anderson, J.L. (2017). Opportunity to Start Strong: Integration of Technology in Science Lessons in the Early Elementary Grades. In Keengwe, S. & Bull, P. (Eds.), *Handbook of Research on Transformative Digital Content and Learning Technologies*. Hershey, PA: IGI Global Press. (Refereed)
- Freeman, E. L. , Reyes, A.J., Dragnic-Cindric, D. & Anderson, J.L. (2017). Integrating Disciplinary Literacy Practices in One-to-One Classrooms. In Keengwe, S. & Bull, P. (Eds.), *Handbook of Research on Transformative Digital Content and Learning Technologies*. Hershey, PA: IGI Global Press. (Refereed)
- Anderson, J. (2015). Navigating family, education, and orientation identities in schools. In Theoharis, G. & Dotger, S. (Eds.), *On The High Wire: Education Professors Walk Between Work and Parenting*.(p.23-33). Charlotte, NC: Informational Age Publishing.
- Anderson, J. (2015). Engagement with Science. In Gunstone, R. (Ed.) *Springer Encyclopedia of Science Education*. Springer Press.  
<http://www.springerreference.com/docs/html/chapterdbid/303213.html> (invited)
- Anderson, J. (2014). Games and the development of students' civic engagement. In Bishop, J. (Ed.) *Gamification for Human Factors Integration: Social, Education and Psychological Issues*. Pp.199-215 Hershey, PA: IGI Global (Refereed)
- Anderson, J. (2010) Music and Science. In Robinson, N.R. & Hall, S.N. (Eds.) *Integration: Music Connections to Enhance the Elementary Classroom Instruction*. Pp. 202-222 Ames, IA: Kendall Hunt Publishers. (Invited)
- Anderson, J. (2010). Games and the development of students' civic engagement and ecological stewardship. In P. Zemiansky & D. Wilcox (Eds.) *Design and implication of educational games: Theoretical and practical perspectives*. Pp. 189-205. (Refereed)
- Anderson, J. & Barnett, M. (in press). Supercharged! Using video games to support student learning in Science. In Barnett, M., Vanides, J. Casas, I. & Chen, S. (Eds.) *Re-imagining the Classroom: Book 4*. HP/ISTE Publishers. (Refereed)

### **Refereed Papers/Articles**

- Minshew, L.M., Barber-Lester, K.J., Derry, S.J. & Anderson, J.L. (2017). Leveraging students' knowledge to adapt science curricula to local context. *Educational Technology & Society*, 20(4), 205-218.
- Barrow, E., Anderson, J., & Horner, M. (2017). The role of photoblogs in social studies classroom: Learning about the people of the Civil War. *Contemporary Issues in Technology and Teacher Education*, 17(4). Retrieved from <http://www.citejournal.org/volume-17/issue-4-17/social-studies/the-role-of-photoblogs-in-social-studies-classroom-learning-about-the-people-of-the-civil-war>
- \*Smith, D., Corbat, J., Madlangbayan, M., Minshew, L.M., Anderson, J.L. (2016). What's Shaking?! Earthquakes and Other Natural Hazards in a Fourth Grade Classroom. *Science and Children*.
- \*Wall, S.D. & Anderson, J.L. (2016). Peer Communication and Blogging. *Contemporary Issues in Technology and Teacher Education*, 15(4). 10% Acceptance Rate, H5 Index 14 Median 38.
- \*Anderson, J.L., Minshew, L.M., & McLendon, T. (2016). Outbreak! Exploring cells, pathogens, and disease. *Science Scope*. January 2016

- \*Anderson, J.L. and Wall, S.D. (2016) Kinecting Physics: Conceptualization of Motion through visualization and embodiment. *Journal of Science Education and Technology*. Online First Link October 8 2015-  
<http://link.springer.com/article/10.1007/s10956-015-9582-4> IF = 1.214, H5 Index 25 Median 32.
- Anderson, J.L. & Justice J. (2015) *Disruptive Design in Pre-service Teacher Education: Uptake, Participation and Resistance*. *Teaching Education*. 26(4) 400-421. DOI: 10.1080/10476210.2015.103467920. Acceptance Rate, H5 Index 19
- \*Rawson, C. Anderson, J., & Hassell-Hughes, S. (2015). Preparing Students for Science-Focused Teacher- Librarian Collaboration: Design and Impact of a Cross-Class Assignment for Preservice School Librarians and Elementary Teachers. *School Library Research*, V.18, 1-24, <http://www.ala.org/aasl/slr/volume18/rawson-anderson-hughes-hassell>.
- \* Anderson, J.L., Minshew, L.M., & Brown, S. (2015). Exploring sound! Using iPads to explore sound in middle school classrooms. *Science Scope*, April-May 2015, 18-24.
- \*Minshew, L. & Anderson, J.L. (2015). Teacher Efficacy in 1:1 iPad Integration in Middle School Science and Math Classrooms. *Contemporary Issues in Technology and Teacher Education*.  
<http://citejournal.org/vol15/iss3/science/article1.cfm> 10% Acceptance Rate, H5 Index 14 Median 38.
- Anderson, J.L., Ellis, J.P. & Jones, A.M. (2014). Understanding Early Elementary Children's Conceptual Knowledge of Plant Structure and Function Through Drawings. *Journal of Life Science Education*, 13, 1-12. IF = 1.878, H5 Index 21 Median 31.
- \*Wall, S.D., Anderson, J., & Justice, J. (2014). Structured Communities, science instruction development and the use of digital media in pre-service elementary teacher education programs. *Journal of Technology and Teacher Education*, 22 (3) July 2014, pp. 361-395. 10% Acceptance Rate, H5 Index 15 Median 21.
- \*Boyd, A., Gorham, J., Justice, J. & Anderson, J. (2013) Examining the Apprenticeship of Observation with Pre-service Teachers: The practice of blogging to facilitate autobiographical reflection and critique. *Teacher Education Quarterly*. 40(3), pp. 27-49, Summer 2013. 10% Acceptance Rate, H5 Index, 15, Median 27.
- Anderson, J.L. & Barnett, M. (2013) Learning physics with digital game simulations in middle school science. *Journal of Science Education and Technology*. 22:914-926. IF = 1.214, H5 Index 25 Median 32.
- \*Anderson, J., Justice, J., Nichols, K., Jones, J., Wall, S., Boyd, A., & Altheiser, L., (2013) The affordances of blogging on establishing communities of practice in a pre-service elementary teacher education program. *Journal of Technology and Teacher Education*. 21(1), 49-88. 10% Acceptance Rate, H5 Index 15 Median 21
- Bull, G., George M., Shoffner, M., Bolick, C., Lee, J., Anderson, J., Slykhuis, D., Garofalo, J., Angotti, R., West, E., Dexter, S., Herring, M., Hofer, M., & Brown, A. (2012). Editorial : Implementing the Teacher Education Initiative. *Contemporary Issues in Technology and Teacher Education*. 12(2), 115-121. 10% Acceptance Rate, H5 Index 14 Median 38.
- Anderson, J. & Barnett, M. (2011) Using video games to support pre-service teachers learning of basic physics principles. *Journal of Science Education and Technology*, 20(4) 347-362. IF = 1.214, H5 Index 25 Median 32.
- Barnett, M., Anderson, J., Houle, M., Higginbotham, T and Gatling, A. (2010). The process of trust building between university researchers and urban school personnel. *Urban Education*, 45(5), 630-660. IF = 0.657 H5 Index 21 Median 28.
- Barnett, M., Wagner, H., Gatling, A., Anderson, J., Houle, M. & Kafka, A. (2006). The impact of science fiction film on student understanding of science. *Journal of Science Education and Technology*. August 2006. 15(2)179-191. IF = 1.214, H5 Index 25 Median 32.

## **Under Review**

\*Minshew, L. , Dragnic-Cindric, D., Corbat, J. & Anderson, J.L. (Under Review). Roller Coaster Frenzy! Energy, Motion and Energy Transfer in the Science Classroom. *Submitted to Science and Children*.

Anderson, J. (Under Review). Using Activity Theory to Analyze and Describe Elementary Students Understanding of Engineering Design Principles Through Lego Robotics. Submitted to *Contemporary Issues in Technology and Teacher Education*. 35 pages.

## **Refereed Conference Proceedings**

\*Anderson, J., Bartlett, K., Minshew, L., Dragnic-Cindric, D. & Barber-Lester, K. (2017). Designing Digital Materials to Support Teacher Enactment of a Project-Based Middle School Biology Curriculum. In P. Resta & S. Smith (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2017* (pp. 2051-2056). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

\*Dragnic-Cindric, D., & Anderson, J.L. (2017). Virtual Composting, Real Pre-Service Teachers: Exploring the Use of Virtual Simulations in Collaborative Learning in Science. In P. Resta & S. Smith (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2017* . Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

\*Minshew, L.M., Anderson, J.L., Barber-Lester, K., & Derry, S. (2016). Designing for Effective Collaborative Learning in High-Needs Rural Classrooms. In Looi, C.K., Polman, J., Cress, U. & Reimann, P. (Eds.) *Proceedings of the International Conference of Learning Sciences – 2016 Singapore*.

Barber-Lester, K., Derry, S., Minshew, L.M., & Anderson, J.L. (2016). Exploring Visualization and Tagging to Manage Big Datasets for DBR: A Modest Proposal with Significant Implications. In Looi, C.K., Polman, J., Cress, U. & Reimann, P. (Eds.) *Proceedings of the International Conference of Learning Sciences – 2016 Singapore*.

\*Minshew, L.M. & Anderson, J.L. (2016). Repurposing iPads and Apps to Teach Science: Moving Beyond Drill and Practice. In *Proceedings of Society for Information Technology & Teacher Education International Conference 2016*. Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

\*Barrow, E., Minshew, L. & Anderson, J.L. (2016). Co-construction of Technology Integrated Lessons. In *Proceedings of Society for Information Technology & Teacher Education International Conference 2016*. Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

\*Freeman, E., Reyes, A., Daragnic-Cindric, D., & Anderson, J.L. (2016). Integrating Literacy Practices in a One-to-One Elementary Science Class. In *Proceedings of Society for Information Technology & Teacher Education International Conference 2016*. Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

\*Reyes, A.J., Freeman, E.L., Jones, M.L., & Anderson, J.L. (2016). Emergent Bilingual Students and Technology in the Elementary Science Classroom. In *Proceedings of Society for Information Technology & Teacher Education International Conference 2016*. Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

\*Dragnic-Cindric, D., Barrow, E., & Anderson, J.L. (2016). Integration of Science and Technology in Kindergarten Classrooms. In *Proceedings of Society for Information Technology & Teacher Education International Conference 2016*. Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

\*Smith, D., Corbatt, J. & Anderson, J.L. (2016). Using the GIR Coaching Model with Beginning Teachers in TPACK Science Implementation. In *Proceedings of Society for Information Technology & Teacher Education*

*International Conference 2016*. Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

- \* Minshew, L. & Anderson, J. (2015). Teacher Implementation of Co-Designed iPad Integrated Science Instruction. In *Proceedings of Society for Information Technology & Teacher Education International Conference 2015* (pp. 1536-1541). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). 30% Acceptance Rate – Outstanding Paper Award.
- \*Minshew, L. & Anderson, J. (2015). Teacher Efficacy in 1:1 Tablet Integration: Year 2. In *Proceedings of Society for Information Technology & Teacher Education International Conference 2015* (pp. 1530-1535). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). 30% Acceptance Rate
- \*Minshew, L. , Caprino, K. & Anderson, J. (2014). Teacher Efficacy in 1:1 Tablet Integration. In *Proceedings of Society for Information Technology & Teacher Education International Conference* Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). – Outstanding Paper Award
- \*Anderson, J. & Wall, S.D. (2014). Kinecting in Physics: Student conceptualization of motion through visualization. *Proceedings of the International Conference of Learning Sciences*. June 2014. 30% Acceptance Rate, H5 Index 16.
- Anderson, J. (2013). Students conceptual understanding about plant structure and function. Paper presented at the Annual International Meeting of the National Association for Research in Science Teaching. Puerto Rico, April 2013. CD-ROM
- \*Wall, S.D. & Anderson, J. (2013). Blogging and the development of science teacher identity in pre-service elementary teachers. Paper presented at the Annual International Meeting of the National Association for Research in Science Teaching. Puerto Rico, April 2013. CD-ROM
- \*Anderson, J., Justice, J., & Wall, S. (2012). Using Blogging As A Disruptive Design For Learning in Pre-Service Teacher Education Courses. Paper presented at the *International Conference of the National Association for Research in Science Teaching*. Indianapolis, IN. CD-ROM
- \*Anderson, J., Justice, J., Nichols, K., Jones, J., Wall, S., Crompton, H., Altheiser, L., & Boyd, A. (2011). Pre-service elementary science teacher identity development through blogging in communities of practice. Paper presented at the *International Conference of the National Association of Research in Science Teaching*. Orlando, FL, March 2011. CD-ROM
- Anderson, J. (2010). The Impact of Using Video Games and /or Virtual Environments in Pre-Service Elementary Teacher Science Education. Published in the *Proceedings of the International Conference of Learning Sciences*. Chicago, IL. June/July 2010. 30% Acceptance Rate, H5 Index 16.
- Anderson, J. & Barnett, M. (2010). Using Video Games to Support Pre-Service Elementary Teachers Learning of Basic Physics Principles. Paper presented at the *International Conference of the National Association of Research in Science Teaching*. Philadelphia, PA. March 2010. CD-ROM
- Anderson, J. (2010). Developing ecological stewardship in elementary school through student participation in virtual worlds. Poster presented at the *International Conference of the National Association of Research in Science Teaching*. Philadelphia, PA. March 2010. CD-RO

- Anderson, J. (2009). Real conversations in virtual worlds: The impact of student conversations on understanding science knowledge in elementary classrooms. Paper presented at the *Annual International Conference of the National Association of Research in Science Teaching*, April 17-21, 2009, Garden Grove, CA. CD-ROM
- Anderson, J., Jong, C. and Barnett, M. (2008). Virtual World, Real Impact: Gender, Race and the Use of a 3D Virtual World to Teach Concepts Around Water Quality. *Annual International Conference of the National Association for Research in Science Teaching*, March 30-April 2, 2008, Baltimore Maryland. CD-ROM
- Anderson, J. (2008). Using Educational Computer and Video-games in K-12 Classrooms to Promote Learning: A Critical Literature Review. *Annual International Conference of the National Association for Research in Science Teaching*, March 30-April 2, 2008, Baltimore Maryland. CD-ROM
- Anderson, J. and Barnett, M. (2007). The Kids Got Game: Using Quest Atlantis, a 3D Virtual Computer Game to Develop Critical Thinking and Problem Solving Skills in Middle School Science Classrooms. Presented at *Annual International Conference of the National Association for Research in Science Teaching (NARST)* - April 2007, New Orleans, LA. CD-ROM
- Anderson, J. and Barnett, M. (2006). Using Activity Theory to Analyze and Describe Special Needs Students Understanding of Engineering Design Principles Through Lego Robotics. Paper presented at the *Annual International Conference of the National Association for Research in Science Teaching*, San Francisco, CA. April 2006. CD-ROM
- Higginbotham, T., Anderson, J., Rosca, C., Barnett, M., Jecunas, D., Copeland, S., and Zinkowski, J. (2006). The Story of One Urban High School's Efforts to Improve Student Attitudes, Motivation, Self-Efficacy and Perceptions of Self, School, and Science through Project-Based Science Instruction. Paper presented at the *Annual International Conference of the National Association for Research in Science Teaching*, San Francisco, CA. April 2006. CD-ROM
- Higginbotham, T., Barnett, M, Anderson, J. Building trust between partners: University, teacher, and administrators in K-12 schools. (2006). Paper presented at the *Annual International Conference of the National Association for Research in Science Teaching*, San Francisco, CA. April 2006. CD-ROM
- Anderson, J., Barnett, M. and Higginbotham, T. (2006). Didn't I Tell You That? Challenges and Tensions in Developing and Sustaining School-University Partnerships. Paper presented at the *International Conference of Learning Sciences*, Indiana University, Bloomington, IN. June 2006. 30% Acceptance Rate, H5 Index 16.
- Higginbotham, T., Anderson, J., & Barnett, M. (2006) Didn't I tell you that? Challenges and tensions in developing and sustaining school-university partnerships. Published in the *Proceedings of the International Conference of the Learning Sciences*, Bloomington, IN. 30% Acceptance Rate, H5 Index 16.
- Anderson, J. Higginbotham, T., Barnett, M., Jecunas., D., Rosca, C., Copman, S., & Zinkowski, J. (2006). The Story of one Urban High School's Efforts to Improve Student Attitudes, Motivation, Self-Efficacy and Perceptions of Self, School, and Science through Project-Based Science Instruction. Published in the *Proceedings of the International Conference of the Learning Sciences*, Bloomington, IN, July 2006. 30% Acceptance Rate, H5 Index 16.
- Barnett, M., & Urban Sciences Research and Learning Group (2006). Building trust between educational researchers and k-12 school personnel. Published in the *Proceedings of the International Conference of the Learning Sciences*, Bloomington, IN, July 2006. 30% Acceptance Rate, H5 Index 16.

Anderson, J., & Barnett, M. (2006). Innovative Session: Early Childhood Robotics for Learning. Published in the *Proceedings of the International Conference of the Learning Sciences*, Bloomington, IN, July 2006. 30% Acceptance Rate, H5 Index 16.

Anderson, J., & Barnett, M. (2005) Using Activity Theory to Analyze and Describe Special Needs Students Understanding of Engineering Design Principles Through Lego Robotics. *Proceedings of the International ROBOLAB Conference*, Austin, TX, August 2005

### **Papers/Articles In Preparation**

Anderson, J.L., Derry, S., Minshews, L.M., Barber-Lester, K., Bartlett, K, Ewing, M. (in preparation). Are the students collaborating? A three-year design-based research case study of a middle school inquiry-based science curriculum. To be submitted to *Journal of Learning Sciences*.

Anderson, J. L., Derry, S., Bartlet, K.A., & Corbat, J. (in preparation). Distancing strategies: Teacher autonomy in a school/university curricular partnership. To be submitted to *Journal of Science Teacher Education*.

Bartlett, K.A., Ewing, M., Anderson, J.L., Derry, S.D. (in preparation). Examining the impact of an inquiry-based science curriculum on student knowledge. To be submitted to *Science Education* or *International Journal of Science Education*.

Anderson, J.L., Derry, S., & Bartlett, K. (in preparation). Sorting observations: (Re) design of a card sort activity to distinguish between quantitative/qualitative observations and inferences. To be submitted to *Instructional Science*.

Minshew, L.M., Barber-Lester, K., Anderson, J.L., Derry, S. & Ewing, M. (in preparation). Exploring student resources: What we learned from open-ended and directed questioning strategies. To be submitted to *Journal of Research in Science Teaching*.

Hooper, J. & Anderson, J.L. (in preparation). Raising public and educational awareness of the white savior trope in commercial video games. To be submitted to *International Journal of Serious Games*.

Anderson, J.L., Rawson, C., & Hughes, S. (in preparation). The design and impact of a cross-class collaboration between Pre-Service Elementary Science Teachers and Pre-Service Librarians. To be submitted to *Journal of Science Teacher Education*. H5 Index 18 Median 22.

### **Products of Engaged Scholarship**

\* Anderson, J.L., Minshew, L., Barber-Lester, K., Bartlett, K., & Derry, S. (2016). Composting Curriculum Interactive Teacher Materials, Modules 1, 2, & 3.

\*Minshew, L.M., Barber-Lester, K., Anderson, J.L. & Derry, S. (2016). Composting Curriculum – North Carolina Version

\*Anderson, J.L., Minshew, L.M., Barber-Lester, K. & Derry, S. (2015). *Biosphere Institute: Composting iBook*. 63 pages.

Anderson, J.L. (2015). *iPadagogy: Teaching and Learning with Mobile Devices – Integrating iPads into the Curriculum in Grades K-5 Science: A Professional Development Workshop- 363 pages*.

Anderson, J.L. & Minshew, L. (2015). *iPadagogy: Teaching and Learning with Mobile Devices – Forces, Motion, and Energy. 45 pages*.



- Anderson, J.L. & Minshew, L. (2015). *iPadagogy: Teaching and Learning with Mobile Devices – Water Quality*. 32 pages. Retrieved from [http://soe.unc.edu/anderson/~anderjl/Water\\_Quality.html](http://soe.unc.edu/anderson/~anderjl/Water_Quality.html)
- Anderson, J.L. (2015). *iPadagogy: Teaching and Learning with Mobile Devices – Chemistry*. 64 pages. Retrieved from <http://soe.unc.edu/anderson/~anderjl/Chemistry.html>
- Anderson, J.L. (2014). *iPadagogy: Teaching and Learning with Mobile Devices - Inquiry with iPads Across the Curriculum*. 67 pages. Retrieved from [http://soe.unc.edu/anderson/~anderjl/iPadagogy\\_Books.html](http://soe.unc.edu/anderson/~anderjl/iPadagogy_Books.html).  
LearnNC Link: <http://www.learnnc.org/lp/pages/7952?ref=search>.
- Anderson, J.L. & Minshew, L. (2014). *iPadagogy: Teaching and Learning with Mobile Devices – Ecosystems Sixth Grade Interactive Student Book*. 110 pages. Retrieved from <http://soe.unc.edu/anderson/~anderjl/Ecosystems.html>. Learn NC Link: <http://www.learnnc.org/lp/pages/7952?ref=search>.
- Anderson, J.L. & Minshew, L. (2014). *iPadagogy: Teaching and Learning with Mobile Devices – Ecosystems Sixth Grade Teachers Manual*. 110 pages. Retrieved from <http://soe.unc.edu/anderson/~anderjl/Ecosystems.html>. LearnNC Link: <http://www.learnnc.org/lp/pages/7952?ref=search>.
- Anderson, J.L. & Minshew, L. (2014). *iPadagogy: Teaching and learning with Mobile Devices – Ecosystems Eighth Grade Interactive Student Book*. 110 pages Retrieved from <http://soe.unc.edu/anderson/~anderjl/Ecosystems.html>.  
LearnNC Link: <http://www.learnnc.org/lp/pages/7952?ref=search>
- Anderson, J.L. & Minshew, L. (2014). *iPadagogy: Teaching and Learning with Mobile Devices – Health, Pathogens and Disease Eighth Grade Interactive Student Book*. 81 pages. Retrieved from [http://soe.unc.edu/anderson/~anderjl/Health\\_Pathogens\\_Disease.html](http://soe.unc.edu/anderson/~anderjl/Health_Pathogens_Disease.html). LearnNC Link: <http://www.learnnc.org/lp/pages/7952?ref=search>.
- Anderson, J. L. & Minshew, L. (2014). *iPadagogy: Teaching and Learning with Mobile Devices – Plate Tectonics Sixth Grade Interactive Student Book*. 43 pages Retrieved from [http://soe.unc.edu/anderson/~anderjl/Plate\\_Tectonics.html](http://soe.unc.edu/anderson/~anderjl/Plate_Tectonics.html).  
LearnNC Link: <http://www.learnnc.org/lp/pages/7952?ref=search>.
- Anderson, J.L. & Minshew, L. (2014). *iPadagogy: Teaching and Learning with Mobile Devices – Plate Tectonics Sixth Grade Teacher's Guide*. 43 pages. Retrieved from [http://soe.unc.edu/anderson/~anderjl/Plate\\_Tectonics.html](http://soe.unc.edu/anderson/~anderjl/Plate_Tectonics.html).  
LearnNC Link: <http://www.learnnc.org/lp/pages/7952?ref=search>.
- Anderson, J.L. & Minshew, L. (2014). *iPadagogy: Teaching and Learning with Mobile Devices – Sound Sixth Grade Interactive Student Book*. 53 pages. Retrieved from <http://soe.unc.edu/anderson/~anderjl/Sound.html>.  
LearnNC Link: <http://www.learnnc.org/lp/pages/7952?ref=search>.
- Anderson, J.L. & Minshew, L. (2014). *iPadagogy: Teaching and Learning with Mobile Devices – Sound Sixth Grade Teacher's Guide*. 53 pages. Retrieved from <http://soe.unc.edu/anderson/~anderjl/Sound.html> LearnNC Link: <http://www.learnnc.org/lp/pages/7952?ref=search>.
- Anderson, J.L. (2014). *iPadagogy: Teaching and Learning with Mobile Devices – Professional Development Week 1*. 177 pages. Retrieved from [http://soe.unc.edu/anderson/~anderjl/iPadagogy\\_Books.html](http://soe.unc.edu/anderson/~anderjl/iPadagogy_Books.html).
- Anderson, J.L. (2014). *iPadagogy: Teaching and Learning with Mobile Devices – Professional Development Week 2*. 186 pages. Retrieved from [http://soe.unc.edu/anderson/~anderjl/iPadagogy\\_Books.html](http://soe.unc.edu/anderson/~anderjl/iPadagogy_Books.html).
- Anderson, J.L. (2014). *iPadagogy: Integrating the iPad in Science Classrooms*. Retrieved from [http://soe.unc.edu/anderson/~anderjl/iPadagogy\\_Books.html](http://soe.unc.edu/anderson/~anderjl/iPadagogy_Books.html).

Anderson, J.L. & Slykhuis, D. (2012). Microsoft TEI Workshop Materials. Retrieved from <http://pil-tei.com/index.html>.

### **Digital Scholarship**

Anderson, J.L. (2014). Microsoft Mix Gallery of Interactive Presentations: Ecosystems and Food Chains. Retrieved from <https://mix.office.com/watch/1v5m06fmaqe8d>

Anderson, J.L. (2014). Microsoft Mix Gallery of Interactive Presentations: Sound! An Introduction to Content for Elementary Teachers. Retrieved from <https://mix.office.com/watch/h04rtcskf0as>

Anderson, J.L. (2014). Microsoft Mix Gallery of Interactive Presentations: Sound Inquiry 1: The Sound Inventory. Retrieved from <https://mix.office.com/watch/10zwlqgbc87mt>

Anderson, J.L. (2014). Microsoft Mix Gallery of Interactive Presentations: Sound Inquiry 2: Analyzing Sounds from the Sound Inventory. Retrieved from <https://mix.office.com/watch/143ifebrhrsoi>

Anderson, J.L. (2014). Microsoft Mix Gallery of Interactive Presentations: Sound Inquiry 3: Pitch and Frequency of Sound Waves. Retrieved from <https://mix.office.com/watch/1pb0hq3pvimj7>

Anderson, J.L. (2014, March 28). The iPadagogy Project. *LearnNC's The Well*. Retrieved from: <http://thewell.web.unc.edu/?s=ipadagogy&submit=Search>

Anderson, J. L. (2014). *Technology Integrated in Elementary Science Classroom: A Text for EDUC 416*. Retrieved from [http://soe.unc.edu/anderson/~anderjl/Course\\_iBooks.html](http://soe.unc.edu/anderson/~anderjl/Course_iBooks.html).

Anderson, J.L. , Friel, S., & Justice, J. (2013). *Senior Methods Block: A Text for EDUC 513*. Retrieved from [http://soe.unc.edu/anderson/~anderjl/Course\\_iBooks.html](http://soe.unc.edu/anderson/~anderjl/Course_iBooks.html)

Anderson, J.L. (2013). *Technology Across the Curriculum*. Retrieved from [http://soe.unc.edu/anderson/~anderjl/Course\\_iBooks.html](http://soe.unc.edu/anderson/~anderjl/Course_iBooks.html)

### **Refereed Conference Presentations**

#### International Conferences

Bartlett, K., Dragnic-Cindric, D., & Anderson, J.L. (2017). Designing Digital Materials to Support Teacher Enactment of a Project-Based Middle School Biology Curriculum. Presented at the International Conference of the Society for Information Technology and Teacher Education. Austin Texas, March 2017.

Dragnic-Cindric, D., & Anderson, J.L. (2017). Virtual Composting, Real Pre-Service Teachers: Exploring the Use of Virtual Simulations in Collaborative Learning in Science. Presented at the International Conference of the Society for Information Technology and Teacher Education. Austin Texas, March 2017.

Anderson, J.L. , Minshew, L.M., Barber-Lester, K. & Derry, S. (2017). Designed Intentions and Teacher Enactment: Examining the Implementation of a Project-Based Science Curriculum in a Rural Context. Presented at the International Conference of the American Educational Research Association. San Antonio Texas, April 2017.

Minshew, L.M., Anderson, J.L., Barber-Lester, K. & Derry, S. (2017). Leveraging Students Prior Knowledge to Adapt Science Curricula to Local Contexts. Presented at the International Conference of the National Association of Research in Science Teaching. San Antonio, Texas, April 2017.

Anderson, J.L., Minshew L.M., Barber-Lester, K. & Derry, S. (2017). Intended Design Versus Teacher Enactment of a DBR Project-Based Middle School Biology Curriculum. Presented at the International Conference of the National Association of Research in Science Teaching. San Antonio Texas, April 2017.

- \*Minshew, L.M., Anderson, J.L., Barber-Lester, K., & Derry, S. (2016). Designing for Effective Collaborative Learning in High-Needs Rural Classrooms. Paper presented at the *International Conference of Learning Sciences – 2016 Singapore*.
- \*Barber-Lester, K., Derry, S., Minshew, L.M., & Anderson, J.L. (2016). Exploring Visualization and Tagging to Manage Big Datasets for DBR: A Modest Proposal with Significant Implications. Paper presented at the *International Conference of Learning Sciences – 2016 Singapore*.
- \*Minshew, L.M. & Anderson, J.L. (2016). Repurposing iPads and Apps to Teach Science: Moving Beyond Drill and Practice. Paper presented at the *Society for Information Technology & Teacher Education International Conference 2016*. Savannah, Georgia
- \*Barrow, E., Minshew, L. & Anderson, J.L. (2016). Co-construction of Technology Integrated Lessons. Paper presented at the *Society for Information Technology & Teacher Education International Conference 2016*. Savannah, Georgia
- \*Freeman, E., Reyes, A., Dragnic-Cindric, D., & Anderson, J.L. (2016). Integrating Literacy Practices in a One-to-One Elementary Science Class. Paper presented at the *Society for Information Technology & Teacher Education International Conference 2016*. Savannah, Georgia
- \*Reyes, A.J., Freeman, E.L., Jones, M.L., & Anderson, J.L. (2016). Emergent Bilingual Students and Technology in the Elementary Science Classroom Paper presented at the *Society for Information Technology & Teacher Education International Conference 2016*. Savannah, Georgia
- \*Dragnic-Cindric, D., Barrow, E., & Anderson, J.L. (2016). Integration of Science and Technology in Kindergarten Classrooms. Paper presented at the *Society for Information Technology & Teacher Education International Conference 2016*. Savannah, Georgia
- \*Smith, D., Corbat, J. & Anderson, J.L. (2016). Using the GIR Coaching Model with Beginning Teachers in TPACK Science Implementation. Paper presented at the *Society for Information Technology & Teacher Education International Conference 2016*. Savannah, Georgia
- \*Hooper, J. & Anderson, J.L. (2016). Raising Public and Educational Awareness of the White Screen Savior in Commercial Video Games. Paper presented at the *American Educational Research Association International Conference, Washington D.C. (Paper)*
- \*Reyes, A., Morton, T.R., Comperatore, A.N., Minshew, L. & Anderson, J.L. (2016). Technology Integration into Pedagogical Practice: Analysis of a One-on-One Coaching Model of Professional Development. Paper presented at the *American Educational Research Association International Conference, Washington D.C. (Paper)*.
- \*Barber-Lester, K., Derry, S., Minshew, L., & Anderson, J. (2016). Orchestrating Collaborative Meaning Making in Complex Science Classrooms: A Study of Macroscript Design. Paper presented at the *American Educational Research Association International Conference, Washington, D.C. (Paper)*.
- \*Anderson, J.L., Minshew, L.M., & Horner, M.V. (2015). Overcoming Barriers: Institutional Barriers in a 1:1 iPad Initiative at a High Needs Urban School. Presented at the *American Educational Research Association Annual Meeting, Chicago, IL (Paper/Roundtable)*.
- \*Horner, M.V., Minshew, L.M., Anderson, J.L. (2015). Social Justice in 1:1 Initiatives: Schools, Transformation Models and Ameliorating the Achievement Gap. Presented at the *American Educational Research Association Annual Meeting, Chicago, IL. (Paper/Roundtable)*.
- \*Caprino, K., Comperatore, A., Bean, M. & Anderson, J. (2015). Cambourne's Conditions for Learning as Framework for Teachers' TPACK Acquisition and Application Through Professional Development. Presented to *American Educational Research Association Annual Meeting, Chicago, IL. (Poster)*.
- \*Minshew, L.M. & Anderson J.L. (2015). Teacher implementation of co-designed iPad integrated science instruction. Presented at the *International Conference of the Society of Technology and Teacher Education, Las Vegas, Nevada, March 2-6, 2015. (Poster – Outstanding Poster Award)*.

- \*Minschew, L.M. & Anderson, J.L. (2015). Teacher Efficacy in 1:1 Tablet Integration: Year 2. Presented at the International Conference of the Society of Technology and Teacher Education. Las Vegas, Nevada, March 2-6, 2015. (Poster).
- \*Anderson, J. & Wall, S.D. (2014) Kinecting Physics: Aiding Student Conceptualization of Physics Through Visualization. Poster Presented at the International Conference of Learning Sciences. Boulder, CO. June 2014. (Poster).
- \*Anderson, J. & Wall, S.D. (2014) Kinecting Physics: Paper presented at the Annual International Meeting of the American Educational Research Association. Philadelphia, PA. April, 2014. (Poster).
- \*Wall, S.D. & Anderson, J. (2014) Peer Interactions and Identity Development. Paper presented at the Annual International Meeting of the American Educational Research Association. Philadelphia, PA. (Paper).
- \*Wall, S.D. & Anderson, J. (2014) Peer Interactions and Identity Development. Paper presented at the Annual International Meeting of the National Association for Research in Science Teaching. Pittsburgh, PA, March 2014. (Paper).
- \*Minschew, L., Caprino, K., Anderson, J. & Justice, J. (2014). Teacher Efficacy in 1:1 Tablet Integration. Poster presented at the Annual Meeting of the Society for Information Technology and Teacher Education. Jacksonville, Fl. March 2014. (Poster – Outstanding Poster Award).
- \*Rawson, C. & Anderson, J. (2014). Synergy for Science: Design and Preliminary Results of a Collaborative Lesson Plan Design Project. Poster Presented at the Association for Library and Information Science (ALISE) Annual Conference, Philadelphia, PA. (Poster).
- Anderson, J. (2013). Students conceptual understanding about plant structure and function. Paper presented at the Annual International Meeting of the National Association for Research in Science Teaching. Puerto Rico, April 2013. (Paper)
- \*Wall, S.D. & Anderson, J. (2013). Blogging and the development of science teacher identity in pre-service elementary teachers. Paper presented at the Annual International Meeting of the National Association for Research in Science Teaching. Puerto Rico, April 2013. (Paper)
- Anderson, J. (2013). Students conceptual understanding about plant structure and function. Paper presented at the Annual International Meeting of the American Educational Research Association, San Francisco, CA, May 2013. (Paper/Roundtable)
- \*Wall, S.D. & Anderson, J. (2013). Blogging and the development of science teacher identity in pre-service elementary teachers. Paper presented at the Annual International Meeting of the American Educational Research Association, San Francisco, CA, May 2013. (Paper/Roundtable).
- Anderson, J.L., Jones, A., Ellis, J. & Hoffman, A. (2012). Children’s conceptual understanding of plant structure and function. Poster presented at the American Society of Plant Biologists, Austin, TX. July 2012. (Poster).
- Anderson, J.L., Justice J. & Wall, S.D. (2012) Using Blogging As A Disruptive Design For Learning in Pre-Service Teacher Education Courses. Paper presented at the *International Conference of the National Association of Research in Science Teaching*. March 2012. (Paper).
- \*Wall, S.D., Anderson, J., & Justice, J. (2012). Structured Communities, science instruction development and the use of digital medial in pre-service elementary teacher education programs. Paper presented at *International Conference of the National Association of Research in Science Teaching*. March 2012. (Paper)
- \*Boyd, A., Gorham, J., Justice, J. & Anderson, J. (2012) Pouring the Apprenticeship of Observation Into the Preservice Blender: Mix, Crush, or Puree? Paper presented at the *American Education Research Association International Conference*. Vancouver, B.C. Canada April 2012. (Paper).
- Anderson, J. & Skylhuis, D. (2012). Teacher Education Initiative - Science. Society for Technology Education Conference. Austin, TX. February 2012. (Workshop).

- \*Anderson, J., Justice, J., Nichols, K., Jones, J., Wall, S., Crompton, H., Altheiser, L., & Boyd, A. (2011) The affordances of blogging on establishing communities of practice in a pre-service elementary teacher education program. Paper to be presented at the *American Educational Research Association International Conference*. New Orleans, LA. April 2011. (Paper/Roundtable).
- \*Anderson, J., Justice, J., Nichols, K., Jones, J., Wall, S., & Crompton, H., Altheiser, L., & Boyd, A. (2011). The development of elementary teacher science identity. Paper presented to the *National Association of Research in Science Teaching International Conference*. Orlando, FL. April 2011. (Paper).
- Anderson, J. (2010). The Impact of Using Video Games and /or Virtual Environments in Pre-Service Elementary Teacher Science Education. Paper presented at the *International Conference of Learning Sciences*. Chicago, IL. June/July 2010. (Poster).
- Anderson, J. (2010). Developing ecological stewardship and civic engagement through student participation in virtual worlds. Paper presented at the *International Conference of the American Educational Research Association*, Denver, CO. April 30 – May 4, 2010. (Paper).
- Anderson, J. & Barnett, M. (2010). Using Video Games to Support Pre-Service Elementary Teachers Learning of Basic Physics Principles. Paper presented at the *International Conference of the National Association of Research in Science Teaching*. Philadelphia, PA. March 2010. (Paper).
- Anderson, J. (2010). Developing ecological stewardship in elementary school through student participation in virtual worlds. Poster presented at the *International Conference of the National Association of Research in Science Teaching*. Philadelphia, PA. March 2010. (Poster)
- Anderson, J. (2009). Real conversations in virtual worlds: The impact of student conversations on understanding science knowledge in elementary classrooms. Paper presented at the *Annual International Conference of the American Educational Research Association* April 13-17, 2009. San Diego, CA. (Paper)
- Anderson, J. & Barnett, M. (2009). Using video games to support pre-service teachers learning of basic physics principles – A Pilot Study. Paper presented at the *Annual International Conference of the American Educational Research Association* , April 13-21, 2009. San Diego, CA. (Paper)
- Anderson, J. (2009). Real conversations in virtual worlds: The impact of student conversations on understanding science knowledge in elementary classrooms. Paper presented at the *Annual International Conference of the National Association of Research in Science Teaching*, April 17-21, 2009, Garden Grove, CA. (Paper)
- Anderson, J., Jong, C. and Barnett, M. (2008). Virtual World, Real Impact: Gender, Race and the Use of a 3D Virtual World to Teach Concepts Around Water Quality. *Annual International Conference of the National Association for Research in Science Teaching* , March 30-April 2, 2008, Baltimore Maryland. (Paper)
- Anderson, J. (2008). Using Educational Computer and Video-games in K-12 Classrooms to Promote Learning: A Critical Literature Review. *Annual International Conference of the National Association for Research in Science Teaching*, March 30-April 2, 2008, Baltimore Maryland. (Poster).
- Anderson, J., Jong, C. and Barnett, M. (2008). Virtual World, Real Impact: Gender, Race and the Use of a 3D Virtual World to Teach Concepts Around Water Quality. *Annual International Conference of the American Educational Research Association* , New York City, New York, March 24-28, 2008.(Poster).
- Anderson, J. and Barnett, M. (2007). The Kids Got Game: Using Quest Atlantis, a 3D Virtual Computer Game to Develop Critical Thinking and Problem Solving Skills in Middle School Science Classrooms. Presented *Annual International Conference of the National Association for Research in Science Teaching (NARST)* - April 2007, New Orleans, LA. (Paper).
- Anderson, J. and Barnett, M. (2007). The Kids Got Game: Using Quest Atlantis, a 3D Virtual Computer Game to Develop Critical Thinking and Problem Solving Skills in Elementary Science Classrooms. Presented at *Annual International Conference of the American Educational Research Association* , April 2007, Chicago, IL.(Paper).

- Anderson, J. and Barnett, M. (2006). Using Activity Theory to Analyze and Describe Special Needs Students Understanding of Engineering Design Principles Through Lego Robotics. Paper presented at the *Annual International Conference of the National Association for Research in Science Teaching*, San Francisco, CA. April 2006. (Poster).
- Anderson, J., Barnett, M. and Higginbotham, T. (2006). Didn't I Tell You That? Challenges and Tensions in Developing and Sustaining School-University Partnerships. Paper presented at the *Annual International Conference of the National Association for Research in Science Teaching*, San Francisco, CA. April 2006. (Paper)
- Higginbotham, T., Anderson, J., Rosca, C., Barnett, M., Jecunas, D., Copeland, S., and Zyncowski, J. (2006). The Story of One Urban High School's Efforts to Improve Student Attitudes, Motivation, Self-Efficacy and Perceptions of Self, School, and Science through Project-Based Science Instruction. Paper presented at the *Annual International Conference of the National Association for Research in Science Teaching*, San Francisco, CA. April 2006. (Paper).
- Higginbotham, T., Barnett, M, Anderson, J. Building trust between partners: University, teacher, and administrators in K-12 schools. (2006). Paper presented at the *Annual International Conference of the National Association for Research in Science Teaching*, San Francisco, CA. April 2006. (Paper)
- Anderson, J., Barnett, M. and Higginbotham, T. (2006). Didn't I Tell You That? Challenges and Tensions in Developing and Sustaining School-University Partnerships. Paper presented at the *International Conference of Learning Sciences*, Indiana University, Bloomington, IN. June 2006. (Paper)
- Higginbotham, T., Anderson, J., Rosca, C., Barnett, M., Jecunas, D., Copeland, S., and Zyncowski, J. (2006). The Story of One Urban High School's Efforts to Improve Student Attitudes, Motivation, Self-Efficacy and Perceptions of Self, School, and Science through Project-Based Science Instruction. Paper presented at the *International Conference of Learning Sciences*, Indiana University, Bloomington, IN. June 2006. (Paper).
- Anderson, J., & Barnett, M. Innovative Session: Early Childhood Robotics for Learning. (2006) Paper presented at the *International Conference of Learning Sciences*, June 2006, Indiana University, Bloomington, IN. (Poster).
- Anderson, J.L., Higginbotham, T. and Barnett, M. (2005). Chamberlain High School: An Urban High School's efforts to improve students' attitudes, motivations, self-efficacy, and perceptions of self, school and science - Early findings. Paper presented at the *Annual International Conference of the National Association for Research in Science Teaching*, Dallas, TX. April 2005.(Paper).
- Bellegarde, H., Barnett, M., Pfitzner, A., Anderson, J., Houle, M., & Kafka, A. (2005). Inviting Students into The World of Seismology Research: Impact on Student Understanding of Seismological Concepts. Paper presented at the 2005 annual meeting of the *Annual International Conference of National Association for Research in Science Teaching*. Dallas, TX. April 2005. (Paper).
- Anderson, J., Higginbotham, T. and Barnett, M.(2005). Chamberlain High School: An Urban High School's efforts to improve students' attitudes, motivations, self-efficacy, and perceptions of self, school and science - Early findings Paper presented at the *Annual International Conference of the American Educational Research Association*, Montreal, Canada, April 2005.(Poster).
- Anderson, J. and Barnett, M. (2005). Using Activity Theory to Analyze and Describe Special Needs Students Understanding of Engineering Design Principles Through Lego Robotics. Paper presented at the *International ROBOLAB Conference*, Austin, TX. August 2005. (Paper).

### National Conferences

- \*Barrow, B. and Anderson, J.L. (2015). Using iPads to enhance content knowledge: A teacher's guide. Submitted to the National Conference of Social Studies. (Poster).

\*Bean, M., Minschew, L.M., Horner, M.V., Bolick, C., Anderson, J., & Justice, J. (2014) No Dusty Textbooks Needed: iPadagogy in the Social Studies Classroom. Presented at the National Conference of Social Studies, Boston, MA. November 21-23, 2014. (Poster).

Miller, M.A., Anderson, J., Jordan, A.W., & Zorigian, K.A. (2010) Ways to get kids talking about the content areas: Reading groups across grade levels in science and social studies classrooms. Poster presented at the *Council for Exceptional Children's annual conference*. Nashville, Tennessee. (Poster).

Anderson, J., Barnett, M. and Bergin, J. (2007) Quest Atlantis: Using computer gaming technology to teach problem solving surrounding water quality and environmental issues. Presented at *National Science Teachers Association (NSTA)*, March 2007, St. Louis, Missouri. (Paper).

Anderson, J. (2005) Activity Theory, Special Needs, and Engineering Design Understandings. Paper presented at *Science Education at the Crossroads*. University of Connecticut, Storrs, CT. October 2005. (Paper).

### Regional / State Conferences

\*Minschew, L.M. & Anderson, J.L. (2014). Teacher Efficacy in a 1:1 Science Classroom: A Case Study. Paper presented at the Mid-Atlantic Association for Science Teacher Education. Blowing Rock, NC. September 19-20, 2014 (Poster).

Miller, M.A., Zorigian, K.A., Jordan, A., & Anderson, J. (2010). Using collaborative reading groups in the content areas to improve motivation in students with learning and behavior problems. Paper presented at the *Midwest Symposium for Leadership in Behavior Disorders' annual conference*. Kansas City, Missouri. (Poster)

### Local Conferences

Anderson, J., Higginbotham, T. and Barnett, M. (2005) Chamberlain High School: An Urban High School's efforts to improve students' attitudes, motivations, self-efficacy, and perceptions of self, school and science - Early findings. Presented at the *Boston College Graduate Association Research Forum*, April, 2005. (Poster).

### Invited Talks and Presentations

**What makes a successful conference proposal and how do you navigate your first conferences? - Graduate Brown Bag Seminar Series – University of North Carolina at Chapel Hill – School of Education – Spring 2016, Spring 2017.**

**iPadagogy: An intersection of scholarship, engagement and graduate training – Carolina Engagement Council – March 2015**

**What makes a successful conference proposal? – Graduate Brown Bag Seminar Series – University of North Carolina at Chapel Hill School of Education – Spring 2015**

**Technology Panel – University of North Carolina at Chapel Hill Board of Trustees Meeting – Spring 2013**

**Using Technology in Secondary Classrooms – MAT Program – Social Studies – Spring 2013**

**Pre-service elementary science teacher identity development through blogging in communities of practice – Brown Bag Seminar Series – University of North Carolina at Chapel Hill – March 2011**

**STEM Education in the 21<sup>st</sup> Century – The College Board – March 2011**

Gave an invited talk on the role of science education within a 21<sup>st</sup> century skills perspective to members of the College Board.

**Virtual Worlds and Learning in Science: Marianist Educational Consortium Science and Math Conference Keynote – July 2010**

Gave a keynote address on teaching and learning in science through the use of 3D Virtual worlds, computer games and animations to participants from Marianist schools across the United States, Puerto Rico and Ireland.

**Virtual Worlds, Learning and the Millennial Student- Department of Health Policy and Management – Gillings School of Global Public Health – University of North Carolina at Chapel Hill – March 2010**

**Virtual Worlds, Learning and Science: How the digital age impacts student learning – High School Journal Conference Invited Talk – University of North Carolina at Chapel Hill – March 2010**

**Virtual World, Real Impact: How digital environments can impact student learning in science – Department of Geological Sciences – East Carolina University – October 2009.**

**Video Games Designed for Education - Department of Computer Science UNC-CH – Spring 2009**

**Virtual World, Real Impact: Using Computer/Video games to teach science in elementary classrooms.**

**Workshops and Profession Development**

**WG Pearson Elementary School iPadagogy Professional Development – August 2015**

Developed and presented a professional development workshop at WG Pearson Elementary School, Durham Public Schools on integrating iPad technology through science inquiry in grades K through 5.

**Biosphere Institute for Middle Grade Science – May – July 2015**

Developed and presented an afterschool / summer program on the science of composting to middle school students (Grades 6-8) at Vance Co. STEM Early High School.

**Lowes Grove Middle School iPadagogy Professional Development – July 2014**

Developed and presented a professional development workshop at Lowes Grove Middle School, Durham Public Schools on integrating iPad technology through inquiry across the curriculum.

**Microsoft Teacher Education Initiative - October 2012 – AACTE Conference – Washington D.C.**

Developed and presented the Science Module for the Teacher Education Initiative for technology integration.

**Microsoft Teacher Education Initiative - May 2012 - UNC Chapel Hill**

Developed and presented the Science Module for the Teacher Education Initiative for technology integration.

**Microsoft Teacher Education Initiative - February 2012. - SITE Conference - Austin, Tx**

Developed and presented the Science Module for the Teacher Education Initiative for technology integration.

**Haw River Elementary School Ecosystems Professional Development – June 2010/ September 2010 – Alamance County, North Carolina**

Presented a professional development workshop on developing and implementing a ecosystems curriculum for fifth grade science at Haw River Elementary.

**Quest Atlantis Workshop and Professional Development – January 2010 – Haw River Elementary School – Alamance County, North Carolina.**

Gave presentation and professional development workshop to teachers at Haw River Elementary on using Quest Atlantis and Taiga to teach units on ecosystems and water quality.

**Quest Atlantis Workshop Presentation - April 2007 - National Science Teachers Association Annual Convention - St. Louis, MO**

Gave presentation to teachers attending NSTA conference entitled, Quest Atlantis: Using computer gaming technology to teach problem solving surrounding water quality and environmental issues.



**Quest Atlantis Professional Development and Workshop - November 2006 - Jackson Mann Elementary School - Boston Public Schools**

Provided professional development and instruction on the implementation of the Quest Atlantis Computer / Video game.

**Quest Atlantis Professional Development and Workshop - August 2006 - St. Columbkille Elementary School, Mc Devitt Middle School Teachers - Held at Boston College**

Provided professional development and instruction on the implementation of the Quest Atlantis Computer / Video game.

**Teaching Activities**

**Courses Taught**

**Doctoral Seminars**

**EDUC 871 - Advanced Topics in Curriculum: Science, Technology, Engineering and Mathematics -**  
Spring 2013 – 2 Students

**EDUC 854 Curriculum and Instruction Seminar in Research**

Fall 2011 – 10 Students

Fall 2012 – 10 Students

Fall 2013 – 8 students

Fall 2014 – 12 Students

**EDUC 602 (New Number – EDUC 716) - Technology Across the Curriculum**

Summer 2013 – 10 Students

Summer 2015 – 9 Students

**Masters Program (MEDX/MAT) Courses**

**MAT Program -EDUC 614 – Innovative and Engaging Teaching**

Spring 2017 – 18 Students

**MEdX Program -EDUX 778 - Perspectives in Earth, Space and Environmental Science**

Spring 2009 – 10 Students

Spring 2011 – 10 Students

**MEdX Program -EDUX 676 – Seminar in Science Education**

Summer 2009 – 10 Students

Summer 2011 – 10 Students

**MEdX Program -EDUX 677 - Perspectives in Life Science**

Fall 2009 – 10 Students

Fall 2011 – 10 Students

**MEdX Program -EDUX 779 – Big Ideas in Science**

Spring 2010 – 10 Students

Spring 2012 – 10 Students

**MEdX Program – EDUX 701 – Teacher Leadership**

Summer 2010 – 30 Students

**EDUC 514 Elementary Science Methods**

Fall 2008 – 2 Sections – 70 Students

Fall 2009 – 2 Sections – 78 Students

Fall 2010 – 35 Students  
Fall 2011 – 34 Students

**EDUC 513 Senior Elementary Methods Block**

Fall 2012 – 34 Students  
Fall 2013 – 34 Students  
Fall 2014 – 34 Students  
Fall 2015 – 32 Students

**EDUC 416 - Technology Integration in Mathematics and Science Education**

Spring 2013 – 34 Students  
Spring 2014 – 34 Students  
Spring 2015 – 28 Students  
Spring 2016 – 26 Students

**Other Courses**

**EDU 109/454 Co-Instructor, Teaching in the Natural World, Boston College, Spring 2004**  
**EDU 109/454 Teaching Assistant, Teaching in the Natural World, Boston College, Fall 2003**  
**Bio 101 Introduction to Biology, Boston College**

**K-12 Teaching**

**Chaminade Julianne Catholic High School – Dayton, Ohio – 1992-2003**

Taught Advance Placement Biology, Anatomy and Physiology, Microbiology, Environmental Science, Honors Biology I, College Prep Biology I, General Biology

**Northmont City Schools – Clayton, Ohio – 1991-1992**

Substitute Teaching

**Ohio Governor’s Institute for the Gifted and Talented - 1991-1993**

**Graduate Student Advising and Committees**

**Doctoral Student Advisees**

Lana M. Minshew	Ph.D. – LSPS	Science Education and Technology
Dalila Dragnic-Cindric	Ph.D. – LSPS	Science Education and Technology
Kerry Ann Bartlett	Ph.D. – LSPS	Technology and Teacher Education
Mwenda Kudumu	Ph.D. – LSPS	Informal Science Education and Technology
Joshua Corbat	Ph.D. – TEC	Science Teacher Education
Megan Williams	Ed.D. – C&I	Curriculum and Nursing
Rhonda Sinuefeld	Ed.D. – C&I	Curriculum, Mathematics
Andy Fisher	Ed.D. – C&I	Curriculum, Technology
Alex Lowery	Ed.D. – C&I	Curriculum, Science Education
Crystal Hardin	Ed.D. – C&I	Curriculum, Informal Science Education

Susan Price Cole	Ed.D. – C&I	Curriculum, Math Education
Susan Cobb	Ed.D. – C&I	Curriculum, Math Education
Brooke Adkins	Ed.D. – C&I	Curriculum, Math Education
Diane Smith	Ed.D. – C&I	Curriculum, Professional Development
Katie Richardson	Ed.D. – C&I	Curriculum, Technology

### **Doctoral Student Committees**

Casey Rawson	Ph.D. – SILs	Library Science, Science Education Comps, Dissertation Committees
Dana Copeland	Ed.D. – C&I	Self Regulated Learning
Dominique Bulls	Ph.D. – CCC	Science Education – Program of Studies Committee, Comprehensive Exam, and Dissertation Committees
Emily Freeman	Ph.D. – CCC	Comprehensive Exam Committee
Daphne Mills	Ph.D. – ADSE	Proposal and Dissertation Committee
Betsy Barrow	Ed.D. – C&I	Program of Studies, Comprehensive Exam Committee and Dissertation Committee
Hana Baskin	Ed.D. C&I	Program of Studies, Comprehensive Exam Committee
Martinette V. Horner	Ed.D. – C&I	Program of Studies, Dissertation Committee
Tara Anderson	Ph.D. – CSL	Digital Medial and Literacy, Proposal and Dissertation Committee
Jia Lin	Ed.D. – C&I	Curriculum and Second Language, Program of Study, Comprehensive Exams
Lini Gi	Ed.D. – C&I	Curriculum and Second Language, Program of Study, Comprehensive Exams
David Brooks	Ed.D. – C&I	Curriculum and Social Studies Education – Program of Study, Comprehensive Exam
Elise Hetrick	Ed.D. – C&I	Early Childhood, Curriculum – Program of Studies , Comprehensive Exam and Dissertation Committees
Brittany Jenner	Ph.D. – A&S	Marine Science – Committee Member

### **Completed Committees and Dissertations**

Steven D. Wall	Ph.D. – CCC	Chair and Advisor Science Education and Identity August 2015 Graduation
----------------	-------------	---

Kacie Martin	Ph.D.- CCC	Learning and Knowledge Production in Sea Turtle Conservation Communities of Practice Dissertation Committee – 2009 Graduation
Lara Willox	Ph.D. – CCC	Being Urban – Urban Education – CHAT: Cultural Historical Activity Theory Dissertation Committee – Graduation 2011
Sonja Leathers	Ed.D. – EdL	Gender and Leadership Dissertation Committee – Graduation 2012
Belle Booker	Ph.D. –ADSE	Science Education and Motivation – Science Teachers’ Efficacy Beliefs, Mastery-Focused Instruction and Students Efficacy Beliefs: A Multi-level Mediation Model Dissertation Committee – Graduation 2014
Mandy Bean	Ph.D. – CCC	Teacher Education – Program of Studies, Comps, and Dissertation Committees – Defended March 2015 The Bridge Between Sessions: The Nature of Discourse in a Novice Teachers’ Blended Community of Practice.
Crisiannee Berry	Ed.D. – C&I	Comprehensive Exam Committee
Helen Crompton	Ph.D.- CCC	Technology and Mathematics – Program Of Study Committee
Peg Carmondy	Ph.D. – CCC	Foundations – Program of Study Committee

#### **Masters Student Advising**

Science Cohort Advisor	2008-2010	10 Students
Science Cohort Advisor	2010-2012	10 Students

#### **Undergraduate Honors Thesis Program**

Erika Kiser	2011-2012	School of Education – Elementary Education Thesis: Why Parents Choose Quaker Education: A Look At Factors Involved in Parents Choice of a Friends School
Carly Hill	2012-2013	School of Education – Elementary Education Thesis: Using Video Modeling with Autistic Children to Increase Social and Communication Skills: A Survey of the Literature
Erica O’Brien	2012-2013	College of Arts and Science – Global Studies Thesis: Of Computers and Capetown: An Evaluation of Computer Education in Capetown South Africa
Munroe Buie	2016-2017	School of Education – Middle Grades Math and Science Education Thesis: An Exploratory Study of the Research on Instructional Practices in Taiwanese, Finnish, and American Secondary Science Classrooms

## Grants and Funding

### External Grants

**Co-PI, James S. McDonnell Foundation Grant – Spring 2017 (under review)**

**Co-PI, Kaufmann Foundation Grant – Spring 2017 (under review)**

**Co-PI, FIRE Grant – Spring 2017 (under review)**

**Principle Investigator – NSF Grant – DRK12 -**

**Senior Researcher/Investigator – NSF Grant – AISL – Collaborative Design for Science Public Outreach: Impacts for Scientists, Learners, and the Science of Learning. (not funded).**

**Senior Researcher/Investigator– NSF Grant – Discovery Research K 12 – (Funded 2014) - \$3,000,000**  
Bio-sphere: Fostering deep learning of complex biology for building our next generation’s scientists

**Co-Principal Investigator - American Society for Plant Biology - Funded - \$30,000 – 2011-2012 - Twelve Principles of Plant Biology Coloring Book and Curriculum and Evaluation**

**Researcher: Kaufmann Foundation Grant - Renci Center- (Funded \$577, 814) - June 2009**

**Researcher: Learning in the 21st Century - Teacher Got Game, National Science Foundation, Discovery Research K-12 Program (2007-2008) - \$115,000 (Sub-contract through Indiana University)**

**Researcher: Exploratory Research in Urban Schools using an Ecological Science-based Video Game, Fall 2006 - Spring 2007 - \$17,000 (Sub-contract through Indiana University)**

**Researcher Urban Ecology Course Materials Created with a Universal Design for Learning Framework, \$2,093,000, National Science Foundation, Fall 2006 - Fall 2009.**

### Internal Grants

**Co-Principal Investigator - Research Triangle School Partnership Seed Grant – 2013-2014 - UNC-CH School of Education Internal Seed Grant - iPadagogy Project – Funded - \$25,000 .**

**Co- Principal Investigator: Odom Foundation Grant - Funded \$11,800 –2009-2010 - UNC-CH Internal Seed Grant – Collaborative Reading Groups**

**Co-Principal Investigator – Lenovo Collaborative Technologies in the Classroom Grant - Funded \$10,000 – Academic Year 2010-2011 – UNC-CH Center for Faculty Excellence Grant Program - Blogging and Social Media Project**

### Professional and Community Service

#### *National*

**AERA – Division K – Program Co-Chair Division K-Section 1 – 2016 AERA Conference – Washington DC**

**AERA – Division K – Program Co-Chair Division K-Section 1- 2015 AERA Conference – Chicago, IL**

**AERA – Division K – Program Co-Chair Division K-Section 1- STEM – 2014 AERA Conference – Philadelphia, PA**

**Fairmont University Advisory Board for the Digital Media, New Literacies and Media Program – 2014- Present**

**Microsoft Teacher Education Initiative Advisory Board - Fall 2011 - 2014**

Advisory board to develop and advise in the implementation of the Teacher Education Initiative. Developed the materials for the Science Module and presented them in their alpha and beta versions. Participated in advisory board meetings as well as module specific meetings.

**AERA – Division C - Chair – Graduate Student Awards Committee**

Awards Committee – 2011-2012 – Selection of outstanding Graduate Student Paper at AERA in Division C.

**AERA – Division C – Vice-Chair – Graduate Student Awards Committee**

Awards Committee – 2010- 2011 – Selection of outstanding Graduate Student Paper at AERA in Division C.

**National Association for Research in Science Teaching**

Awards Committee – 2010 – 2013 - Dissertation Awards – Selection of the outstanding dissertation.

**Advisory Board, Chaminade Julianne High School STEM Initiative – 2008- 2012**

Serve on the advisory board for Chaminade Julianne High School's (Dayton, OH) STEM initiative that includes the high school curriculum and summer programs offered to area grade schools. Board meets quarterly.

**Marianist Educational Consortium (MEC) Advisory Committee – Science and Math – 2010 – 2012**

Under the direction of the Assistant Provincial for Education for the Society of Mary in the United States, Puerto Rico and Ireland. Advisory board oversees the planning and implementation of the annual MEC workshops.

**National Science Foundation – Washington, D.C. – Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMS Program)**

August 2009 - Review Panel for the selection of the secondary (7-12) science teacher award recipients.

August 2010 - Review Panel for the selection of the elementary (K-6) science teacher award recipients.

**UNC – CH University**

**Learn NC Advisory Board – April 2011 – 2014**

**CHAT (Collaborations: Humanities, Arts and Technology) – February 16-20, 2010**

Participated in K-12 Teacher Translational Sessions – Round table discussions about ways in which classroom teachers could implement and apply some of the technologies that they were experiencing at the CHAT festival.

**FEMMES – Females Excelling More in Math, Engineering and Science – November 2009, 2010, 2011, 2012**

Presented a hands-on inquiry workshop on engineering design, bridges, and LEGO Robotics for girls from around the Triangle area in grades 4, 5 and 6.

**UNC - CH School of Education School Wide Committees**

**Curriculum and Instruction Program Coordinator – 2016 - Present**

**CCEE Task Force – 2016-2017 –**

Served as the Co-Chair of the task force

**Faculty Executive Council - 2011- 2014**

Serve as the Assistant Professor Representative to the council.

**SOE Technology Advisory Committee – 2012- Present**

**School Advisory Committee – Fall 2010 - 2011**

Served as a faculty representative for Culture, Curriculum and Change

**Thomas James Chair Search Committee - Fall/Spring 2011-2012**

**Curriculum and Instruction Advisory Committee – 2011-2012**

**Curriculum and Instruction Re-visioning Committee – 2009-2010**

Served as a faculty representative for Teaching and Learning in the complete restructuring of a previously suspended doctoral program.

**M.Ed. / North Carolina Outward Bound Collaboration Project Committee – 2010**

**Local Service**

**Lowes Grove Middle School – Durham Public Schools – Science Fair Judge - 2015**

**Lowes Grove Middle School – Durham Public Schools – 2013-Present**

Provide professional development in technology integration across the disciplinary areas.

**WG Pearson Elementary School – Durham Public Schools – 2014- Present**

Provide professional development in technology integration with a focus on science.

**Haw River Elementary School – 2009 – 2010**

Provided professional development in science content for teachers.

**Carolina Friends School – May 2010**

Provided a hands-on workshop on SAM and Scratch Animation to Carolina Friends School Middle School Students.

**Other Committees**

**Carolina Center for Science and Math Education Search Committee - Fall 2008**

Participated in a search for the Associate Director of the Center

**Kaufmann Foundation Meetings – Fall 2008**

Participated as a School of Education Representative with the Kaufmann Foundation Study Group. Participation included two, two-day meetings in November and December 2008 which resulted in a funded grant.

**Book Editorial Boards**

*Adaptation, Resistance and Access to Instructional Technologies: Assessing Future Trends in Education,*

D'Agustino, S. (Ed.). –

Reviewed manuscripts and evaluated their quality for publication in this volume.

*Re-imagining the Classroom, Barnett, M., Vanides, J., Casas, I. & Chen, S. (Eds.)*

Reviewed manuscripts and evaluated their quality for publication

**Journal / Conference Reviewer**

**Reviewer, National Association of Research in Science Teaching Annual International Conference (NARST)**

2007- Present

**Reviewer, American Educational Research Association Annual International Conference**

**Reviewer, International Journal of Science Education**

2004 - 2008

**Reviewer, Journal of Teacher Education**

2004 - present

**Reviewer, Journal of Educational Change**

2009

**Reviewer, Journal of Science Education and Technology**

2009 – Present

**Reviewer, Science Education**

2009 – Present

**Director, Montgomery County Science and Engineering Fair – ISEF**

1997-2003

Coordinated the selection of representatives from the Regional Fair to the International Science and Engineering Fair sponsored by Intel. Supervised students participation at the International event.

**Montgomery County Science and Engineering Fair Committee**

1993-2003

Part of the organizing committee of the county level science fair.

**Professional Associations**

**National Association for Research in Science Teaching**

2003 - present

**American Educational Research Association**

2003 - present

**International Society of Learning Sciences**

2006 - present

**National Science Teachers Association**

2003 - present

**North Carolina Science Teachers Association**

2012- present

**Association for Computers in Education / Society for Technology and Teacher Education**

2008, 2009, 2014, 2015

**National Association for Biology Teachers**

2003 - 2008

**Association for Computing Machinery (ACM)**

2006 – 2008

**Phi Delta Kappa**

2003 – Present

**Mid-Atlantic Association of Science Teacher Educators (MA-ASTE)**

2014-