Curriculum Vitae

Complete CV

Vanessa Svihla, Ph.D.

Organization, Information & Learning Sciences
College of University Libraries & Learning Sciences
MSC 05 3020

Secondary appointment: Chemical & Biological Engineering

1 University of New Mexico, Albuquerque NM 87131-0001
(505) 750-0263 vsvihla@unm.edu

Academic Background

Ph.D., The University of Texas at Austin, Science Education, 2009.

- Dissertation: *How differences in interaction affect learning and development of design expertise in the context of biomedical engineering design*.

M.S., Geological Sciences, The University of Texas at Austin, 2003.

- Thesis: *Structural evolution of the east central Big Maria Mountains, Maria fold and thrust belt, southeastern California.*

B.A., Geology and Russian, Smith College, 1997.

- Sophomore year abroad in Odessa, Ukraine, Одесский государственный университет.

Research Interests

Learning Sciences; Engineering Education; Design Learning; Project-Based Learning; Discipline-Based Education Research; Authentic Assessment; and Research Methods.

Professional Experience

Assistant Professor, The University of New Mexico, Organization, Information & Learning Sciences, Fall 2014-Current.

Courses taught

- OILS 593. Design-Based Research, Fall 2015
- OILS 601. Advanced Instructional Design, Fall 2014, Fall 2016
- OILS 543. Instructional Design, Fall 2014, Fall 2015, Fall 2016
- OILS 596. Internship, Summer 2015-current
- OILS 598. Directed readings: Topic: *Grant writing for studying literacy learning in real world settings,* Fall 2014
- OILS 598. Directed readings: Topic: *Instructional design for teaching water resources,* Fall 2014

Evaluator, Academic Science Education and Research Training (ASERT) Program, NIH-funded program at UNM. Spring 2015-current.

- Designed evaluation plan
- Collected and analyzed qualitative data, including surveys, interviews and data from workshops.
- Prepared reports

Assessment Consultant, ACE Leadership High School, Fall 2015-current.

- Analyzed data and prepared reports on multiple forms of assessment.

Assistant Professor, The University of New Mexico, Teacher Education, Educational Leadership & Policy, Fall 2011-Spring 2014.

- Nominated for the 2012-2013 New Faculty Teacher of the Year Award

Courses taught

- EDUC 693. T: Educational Processes in Teaching and Teacher Education, Spring 2013
- EDUC 698. Directed Readings: Statistical Methods for Teaching & Learning, Summer 2013, Spring 2014
- EDUC 698. Directed Readings: Case & Small N Methods, Summer 2013
- EDUC 698. Directed Readings: Design-Based Research, Summer 2013
- EDUC 391. Problems: Design Principles for CSCL, Spring 2013
- EDUC 597. Directed Readings: Academic Integrity, Spring 2013
- MSET 431. The Teaching of Secondary Sciences, Fall 2011, 2012, 2013
- EDUC 502. Advanced Instructional Strategies, Fall 2012, 2013 (online), Spring 2014
- EDUC 591 Problems. T: Learning with Immersive media, Fall 2012
- EDUC 593. Seminar in Reflective Practice, Spring 2012
- EDUC 593. Teacher Effectiveness and Student Achievement, Spring 2012
- EDUC 593/505. Experiential, Service, & Project Based Learning, Spring 2012

Post Doctoral Scholar, Graduate School of Education, The University of California, Berkeley, *Cumulative Learning using Embedded Assessment Results* (CLEAR, NSF #0822388). Summer 2009-Summer 2011. Mentor: Marcia Linn

- Designed Web-based Inquiry Science Environment curricula
- Conducted design-based research
- Provided professional development

Courses taught

- Video Analysis Seminar. Co-taught with Randi A. Engle. Spring 2011.
- Co-taught technology-enhanced science projects in 6th grade classrooms, Albany Middle School, Martinez Junior High School, Sequoia Middle School, and Foothill Middle School.

Assistant Instructor, UTeach, The University of Texas, Fall 2008-Spring 2009.

Courses taught

- EDC 371: Project Based Instruction in Mathematics and Science.
- EDC 371: Knowing and Learning in Mathematics and Science.

Consultant, Learning in Informal and Formal Environments (LIFE) Center, University of Washington (NSF #0354453), Fall 2007-Spring 2010, with John Bransford and Nancy Vye.

Graduate Research Assistant, The University of Texas, Austin.

- Spring 2009. Physically Distributed Learning, with Taylor Martin.
- Spring 2007-Fall 2008. Capstone biomedical engineering design, with Anthony Petrosino, Taylor Martin, and Kenneth Diller.
- Fall 2004- Spring 2006. VaNTH ERC (NSF # EEC-9876363). With Anthony Petrosino and Kenneth Diller. Adaptive expertise.

Consultant, Pearson/Pearson Prentice Hall, 2004-2009.

- Reviewed science content for state standardized assessments (Texas & Maryland).
- Conducted research and scientific review for text book, Keller, E.A., and Blodgett, R.H., 2008, *Natural hazards; Earth's processes as hazards, disasters, and catastrophes* (2nd edition): Upper Saddle River, New Jersey, 488 p.

Graduate Student Intern, Learning in Informal and Formal Environments (LIFE) Center, University of Washington. (NSF #0354453). Summer-Fall 2006. Selected as first LIFE intern, with John Bransford and Nancy Vye.

- Conducted research on adaptive expertise
- Conducted pilot research for an fMRI study on dopamine response system in new learning

Teaching Assistant, UTeach, The University of Texas, Austin. Summer 2005.

Courses taught

- EDUC 571. Knowing and Learning

Teaching Assistant, Geology, The University of Texas, Austin. Fall 2000-Spring 2003. Taught laboratory and field sections; Instructor ratings 4.5-4.9 out of 5.

Courses taught

- GEO 303 Introduction to Geology
- GEO 302E Earth, Wind and Fire (geology for non-science majors)
- GEO 420K Introduction to Field and Stratigraphic Methods
- GEO 660 Field Methods

NSF GK-12 Fellow, LBJ High School, Austin, TX, and The University of Texas, Fall 2003-Summer 2004.

- Co-taught 10th grade, project-based, Earth science

Peace Corps Volunteer, Philippines, July 1998-May 2000.

- Conducted teacher professional development
- Directed youth ecology camps
- Taught environmental science at Don Severino Pagalilauan High School, Peñablanca, Cagayan, Philippines

Substitute Teacher, Roosevelt Elementary School, Elkhart Public School System, Fall 1997-Spring 1998.

- Extended assignment, teaching science with ESL and emotionally handicapped students.

Publications

Edited books, under contract

Bishop, M.J., Boling, E., Elan, J., & **Svihla, V.** (due to publisher 06/2018). *Handbook of Research for educational communications and technology* (5th Edition). Association for Educational Communications and Technology. Springer.

Edited books, published

Svihla, V. & Reeve, R. (Eds.). (2/2016). *Design as scholarship: Case studies from the learning sciences.* New York, NY: Routledge.

Petrosino, A, Martin, T., and **Svihla, V.** (Eds.). (2007). *Developing student expertise and community: Lessons from How People Learn.* New Directions in Teaching and Learning. (Vol. 108). San Francisco: Jossey-Bass.

Refereed articles, in progress

Svihla, V., Wester, M., & Linn, M. C. (planned submission 9/2016). Distributed practice in classroom inquiry science learning. *Learning: Research and Practice*.

Svihla, V., Kienzle, E., Reeve, R., Gravel, B. (planned submission 11/2016). Agentic trajectories and timescales of learning. *Cognition & Instruction.*

Svihla, V., Reeve, R., Gravel, B., Field, J., & Lane, W. (planned submission 12/2016). Ideation and framing by high school teachers: analysis of design conversations. *Design and Technology Education: an International Journal*.

Svihla, V., Kienzle, E., & DeLiema, D. (planned submission 2/2017). Materiality in Motion. *Studies in Materiality.*

Svihla, V. (planned submission 5/2017). Assessing problem framing. *Assessment & Evaluation in Higher Education.*

Svihla, V. (planned submission 8/2017). Assessment as (re)professionalism: Redesigning assessment as a tool for autonomy in a charter school. *Theory into Practice.*

Refereed articles, under review

Svihla, V. & Kooser, A. (submitted 12/2015). Interdisciplinary research as a site for fostering diversity in the sciences, *Journal of Interdisciplinary Studies in Education.*

Svihla, V., Tyson, K., Boyle, J. D., Collins, J., Kooser, A., Livingston, A., Bryant, J. (abstract accepted 11/2013; submitted 12/2013). "I don't know anything about DNA. Well I do, but from you guys." A vision for interdisciplinary STEM teaching. In P. M. Jenlink (Ed.), *STEM teaching and Common Core Standards: An interdisciplinary approach*: Rowman & Littlefield.

Refereed articles, published (15)

Svihla, V. & Reeve, R., (accepted 06/2016). Facilitating problem framing in project-based learning, *Interdisciplinary Journal of Problem-Based Learning*.

McKay, T., Jimenez, E.Y., **Svihla, V.,** Castillo, T., Cantarero, A. (09/2016). Teaching professional practice: Using Interactive Learning Assessments to simulate the nutrition care process (NCP), *Topics in Clinical Nutrition.*

Svihla, V., Reeve, R., Collins, J., Lane, W., Field, J., Stiles, A., (02/2016). Framing and reframing: decision making in project-based unit, *International Journal of Designs for Learning. 7*(1), 19-36.
https://scholarworks.iu.edu/journals/index.php/ijdl/article/view/19427/26872

Svihla, V., Wester, M., & Linn, M. C. (12/2015). Revisiting: An analytic for retention of coherent science learning. *Journal of Learning Analytics*. 2(2), 74-100. http://dx.doi.org/10.18608/jla.2015.22.7

Crayton, J. & **Svihla, V.** (09/2015). Designing for immersive technology: integrating art and STEM learning. *The STEAM Journal.* 2(1). http://scholarship.claremont.edu/steam/vol2/iss1/8/

Svihla, V., Reeve, R., Sagy, O., & Kali, Y. (04/2015). A fingerprint pattern of supports for teachers' designing of technology-enhanced learning. *Instructional Science, 43*(2), 283-307.

Liu, L., Ryoo, K., Sato, E., **Svihla, V.**, & Linn, M.C. (03/2015). Measuring knowledge integration learning of energy topics: A two-year longitudinal study. *International Journal of Science Education. 37*(7), 1044-1066.

Svihla, V. (12/2014) Advances in design-based research in the learning sciences. *Frontline Learning Research, 2*(4), 35-45, doi: http://dx.doi.org/10.14786/flr.v2i4.114.

Boyle, J. D., **Svihla, V.**, Tyson, K., Bowers, H., Buntjer, J., Garcia-Olp, M., Kvam, N., & Sample, S. (10/2013). Preparing teachers for new standards: from content in core disciplines to disciplinary practices. *Teacher Education & Practice, 26*(2).

Svihla, V., Petrosino, A. J., & Diller, K. (07/2012). Learning to design: Authenticity, problem posing and problem solving. *International Journal of Engineering Education.* 28, (4), 1–17.

Martin, T., **Svihla, V.**, & Petrick Smith, C. (05/2012). The role of physical action in fraction learning. *Journal of Education & Human Development,* 5(1), 1-17.

Svihla, V., & Linn, M. C. (10/2011). A design-based approach to fostering understanding of global climate change. *International Journal of Science Education,* 34(5), 651-676.

Svihla, V. (09/2010) Collaboration as a dimension of design innovation. *Journal of CoDesign: International Journal of CoCreation in Design and the Arts*, 6(4), 245-262.

Svihla, V., Petrosino, A. J., Martin, T., & Diller, K. R. (07/2009). Learning to design: Interactions that promote innovation. In W. Aung, K.-S. Kim, J. Mecsi, J. Moscinski & I. Rouse (Eds.), *Innovations 2009: World Innovations in Engineering Education and Research* (pp. 375-391). Arlington, VA: International Network for Engineering Education and Research.

Weusijana, B. K. A., **Svihla, V.**, Gawel, D. J., & Bransford, J. D. (02/2009). MUVEs and experiential learning: Some examples. *Innovate: Journal of Online Education*.

Refereed proceedings, published (30)

Svihla, V., Gomez, J., Datye, A., Law, V., & Bowers, S. (07/2016). Mapping Assets of Diverse Groups for Chemical Engineering Design Problem Framing Ability, in the *Proceedings of the American Society for Engineering Education 123rd Annual Conference and Exhibition.*

Svihla, V. (07/2016). Fundamental Research: Characterizing Underrepresented Students' Interest in Engineering Careers. In the *Proceedings of the American Society for Engineering Education 123rd Annual Conference and Exhibition.*

Svihla, **V**. & Kittinger, L. (10/2016). Agentic Trajectories: Development and Learning in a Project-Based High School for Marginalized Students. In *Transforming Learning, Empowering Learners*: *Proceedings of ICLS*, C-K. Looi, U. Cress, J. Polman, & P. Reimann (Eds.), Vol. 1. International Society of the Learning Sciences.

Svihla, **V**. & Reeve, R. (10/2016). Stories as Prototypes for Interdisciplinary Learning. In

Transforming Learning, Empowering Learners: *Proceedings of ICLS*, C-K. Looi, U. Cress, J. Polman, & P. Reimann (Eds.), Vol. 1. International Society of the Learning Sciences.

Svihla, V. (10/2015). Making for engagement, development and learning, In *Proceedings of FabLearn 2015.*

Svihla, V., Gines, M., & Yang, Y. (10/2014). Teachers as learners then designers: Shifting from instructionist to constructionist approaches. In *Proceedings of FabLearn* 2014.

Livingston, A., Collins, J., Kooser, A., & **Svihla**, **V**. (06/2014). Teachers becoming (temporary) engineers to become better teachers. *Learning and becoming in practice*: *Proceedings of ICLS.* B. Penuel, S. Jurow, and K. O'Connor, (Eds.), Vol. 2. International Society of the Learning Sciences.

McKay, T., Cantarero, A., **Svihla, V.**, Yakes Jimenez, E., & Castillo, T. (06/2014). Becoming a professional through virtual practice. *Learning and becoming in practice: Proceedings of ICLS*: B. Penuel, S. Jurow, and K. O'Connor, (Eds.), Vol. 2. International Society of the Learning Sciences.

Stiles, A. Bryant, J., Tyson, K., **Svihla, V.** (06/2014). "These are the facts": Opportunities for and barriers to policy changes that support learning. *Learning and becoming in practice: Proceedings of ICLS*: B. Penuel, S. Jurow, and K. O'Connor, (Eds.), Vol. 2. International Society of the Learning Sciences.

Svihla, V., Yakes, E., Castillo, T., Cantarero, A., Valdez, I., & Dominguez, N. (10/2013). Interactive Learning Assessment: Providing context and simulating professional practices. *Proceedings of Games, Learning, Society 9.*

Svihla, V., Kvam, N., Dahlgren, M., Bowles, J., & Kniss, J. (10/2013). We can't just go shooting asteroids like space cowboys: The role of narrative in immersive, interactive simulations for learning. *Proceedings of Games, Learning, Society, 9*.

Reeve, R., & **Svihla, V.** (09/2013). Design in the world AND our work. In M. Kapur, M. J. Nathan & N. Rummel (Eds.), *To see the world and a grain of sand: Learning across levels of space, time, and scale.* Vol. 2: p. 337-338. International Society of the Learning Sciences.

Svihla, V., Kvam, N., Dahlgren, M., Bowles, J., & Kniss, J. (09/2013). Extending inquiry and surfacing questions: Collaborative learning with immersive, interactive projection. In M. Kapur, M.J. Nathan & N. Rummel (Eds.), *To see the world and a grain of sand: Learning across levels of space, time, and scale.* Vol. 2: p. 365-366. International Society of the Learning Sciences.

Svihla, V. and Linn, M.C. (07/2012). Distributing practice: Challenges and opportunities for inquiry learning. In J. van Aalst, K. Thompson, J. Jacobson, P. Reimann (Eds.), *The future of learning.* Vol. 1., p. 371-378. International Society of the Learning Sciences.

Sato, E. and **Svihla, V.** (07/2012). Scaffolding collaborative sensemaking during critique of explanations in technology-enhanced science curriculum. In J. van Aalst, K. Thompson, J. Jacobson, P. Reimann (Eds.), *The future of learning*. Vol 2., p. 177-181. International Society of the Learning Sciences.

Svihla, V. (07/2011). Formulating WISE learning experiences. In H. Spada, G. Stahl, N. Miyake & N. Law (Eds.), *Connecting computer supported collaborative learning to policy and practice.* Vol. 1, p. 232-239. International Society of the Learning Sciences.

Svihla, V. (07/2010). Contingent identification in a biomedical engineering classroom. In K. Gomez, L. Lyons & J. Radinsky (Eds.), *Learning in the disciplines:* Vol. 1, p. 913-920. International Society of the Learning Sciences.

Svihla, V., Gawel, D. J., Brown, M., Moore, A., Vye, N. J., & Bransford, J. D. (07/2010).

21st Century assessment: Redesigning to optimize learning. In K. Gomez, L. Lyons & J. Radinsky (Eds.), *Learning in the disciplines:* Vol. 2, p. 474-475. International Society of the Learning Sciences.

Svihla, V., Gerard, L., Ryoo, K., Sato, E., Visintainer, T., Swanson, H., . . . Dorsey, C. (07/2010). Energy across the curriculum: Cumulative learning using embedded assessment results. In K. Gomez, L. Lyons & J. Radinsky (Eds.), *Learning in the disciplines:* Vol. 2, p. 257-259. International Society of the Learning Sciences.

Svihla, V. (2009). Collaboration and framing as dimensions of design innovation. In N. Bryan-Kinns, M. D. Gross, H. Johnson, J. Ox & R. Wakkary (Eds.), *Everyday creativity shared languages and collective action: Proceedings of the seventh ACM conference on Creativity and Cognition*, p. 285-294, ACM.

Svihla, V. (2009). Methods for triangulation and revealing interaction. In A. Dimitracopoulou, C. O'Malley, D. Suthers & P. Reimann (Eds.), *CSCL practices.* Vol. 2, p. 43-45. International Society of the Learning Sciences.

Svihla, V., Phillips, R., Gawel, D. J., Vye, N. J., Brown, M., & Bransford, J. D. (2009). A tool for 21st century learning and assessment. In A. Dimitracopoulou, C. O'Malley, D. Suthers & P. Reimann (Eds.), *CSCL practices.* Vol. 2, p. 46-48. International Society of the Learning Sciences.

Svihla, V., Petrosino, A. J., & Diller, K. R. (2008). Distributed cognition and interactions in the context of bioengineering design. In P. A. Kirschner, F. Prins, V. Jonker & G. Kanselaar (Eds.), *International Perspectives in the learning sciences: Cre8ing a learning world:* Vol. 3, p. 136-137. International Society of the Learning Sciences.

Gawel, D. J., Phillips, R., **Svihla, V.**, Vye, N. J., & Bransford, J. D. (2008). Considerations for the development of a Preparation for Future Learning Assessment. In P. A. Kirschner, F. Prins, V. Jonker & G. Kanselaar (Eds.), *International perspectives in the learning sciences: Cre8ing a learning world:* Vol. 1, p. 273-280. International Society of the Learning Sciences.

Petrosino, A. J., **Svihla, V.**, & Kapur, M. (2008). Models of expertise in process- and content-dominated areas of bioengineering. In P. A. Kirschner, F. Prins, V. Jonker & G. Kanselaar (Eds.), *International perspectives in the learning sciences: Cre8ing a learning world:* Vol. 3, p. 111-112. International Society of the Learning Sciences.

Svihla, V., & Petrosino, A. J. (2008). Improving our understanding of K-12 engineering education. In *Proceedings of the International Conference on Engineering Education*: iNEER.

Svihla, V., Petrosino, A. J., Martin, T., & Diller, K. R. (2008). Learning to design: Interactions that promote innovation. In *Proceedings of the International Conference on Engineering Education*: iNEER.

Svihla, V., Petrosino, A., & Diller, K. (2007). Distributed expertise and authenticity in the development of design expertise. In *Proceedings of the International Conference on Engineering Education*: iNEER.

Svihla, V. (2006). Formative assessment: reducing math phobia and related test anxiety in a geology class for non-science majors. In S. A. Barab, K. E. Hay & D. T. Hickey (Eds.), *learning sciences: Making a difference: Vol. 2,* p. 998-999. International Society of the Learning Sciences.

Barr, R., Pandy, M., Petrosino, A., & **Svihla, V.** (10/2005). Challenge-based instruction: the VanTH biomechanics learning modules. In *Pedagogies and technologies for the emerging global economy: Proceedings of ASEE/IEEE Frontiers in Education*. doi:10.1109/FIE.2005.1612191

Chapters and editorials, published (8)

Svihla, V. & Reeve, R. (03/2016). Untold stories. In V. Svihla & R. Reeve, (Eds.) *Design as scholarship: Case studies from the learning sciences* (pp. 1-10). New York, NY: Routledge.

Reeve, R. & **Svihla, V.** (03/2016). Designing: The unseen dimension of our scholarship. In V. Svihla & R. Reeve, (Eds.) *Design as scholarship: Case studies from the learning sciences.* (pp. 140-149). New York, NY: Routledge.

Kang, S.P., **Svihla, V.**, Law, V., & Grassberger, R. (03/2016). Human Performance Technology Blooms in the High Desert: An Academic Program Profile: Organization, Information, and Learning Sciences (OILS) Program, The University of New Mexico. *Performance Improvement*.

Svihla, V. (05/2013). Editorial: Student-authored publications as a means to teaching science practices. *The Journal of Experimental Secondary Science.*

Svihla, V., Ryoo, K., Linn, M. C., & Dorsey, C. (2011). Connecting energy across the curriculum. *@Concord Newsletter, 15(1), 12-13.*

Svihla, V., Vye, N. J., Brown, M., Phillips, R., Gawel, D. J., & Bransford, J. D. (2009). Interactive Learning Assessments for the 21st Century. *Education Canada*, *49*(3), 44-47.

Svihla, V., Marshall, J., & Petrosino, A. J. (2008). *K-12 engineering education impacts* (Commissioned Paper): National Academy of Engineering Committee on Understanding and Improving K-12 Engineering Education in the United States.

Petrosino, A. J., **Svihla, V.**, & Brophy, S. P. (2008). *Engineering skills for understanding and improving K-12 engineering education in the United States* (Commissioned Paper): National Academy of Engineering Committee on Understanding and Improving K-12 Engineering Education in the United States.

Professional Presentations

Refereed Presentations (66)

Svihla, V., Pierard, C., Clement, S., & Fazio, B-S. (11/2016). *Affordances of and Barriers to Learning Using Electronic Texts as Identified by Instructional Design Graduate Students.* Association for Educational Communications & Technology, Las Vegas, NV.

Svihla, V., Gomez, J., Datye, A., Law, V., & Bowers, S. (07/2016). *Mapping Assets of Diverse Groups for Chemical Engineering Design Problem Framing Ability*, American Society for Engineering Education 123rd Annual Conference and Exhibition, New Orleans. **Best Diversity Paper, selected from 1700 papers.**

Svihla, V. (07/2016). *Fundamental Research: Characterizing Underrepresented Students' Interest in Engineering Careers.* American Society for Engineering Education 123rd Annual Conference and Exhibition, New Orleans.

Svihla, V. & Kittinger, L. (07/2016). *Agentic Trajectories: Development and Learning in a Project-Based High School for Marginalized Students*. International Conference of the Learning Sciences, Singapore.

Svihla, V. & Reeve, R. (07/2016). *Stories as Prototypes for Interdisciplinary Learning*. International Conference of the Learning Sciences, Singapore.

Svihla, V. & Sanchez, D. (02/2016). *Productive constraints in fashion design under time pressure*, Paper presented at 37th annual Southwest Popular/American Culture Association (SWP/ACA) conference, Albuquerque, NM.

Svihla, V. (09/2015). *Making for engagement, development and learning*, Paper presented at FabLearn 2015, Stanford, CA.

Collins, J., Shauger, R., Angermeier, C., Chernow, A., **& Svihla, V**. (04/2015). *Teacher perceptions of project-based learning units: Implications for professional development.* Paper presented at the AERA Annual Meeting, Chicago, IL.

Donahue, M., Donahue, J., Yakes Jimenez, E., Castillo, T., **& Svihla, V**. (04/2015). *Needs-based designing for learning professional practices: Scholarly and worldly.* Paper presented at the AERA Annual Meeting, Chicago, IL.

Reeve, R. & **Svihla, V.** (04/2015). *Stories of, for and as designing*. Paper presented at the AERA Annual Meeting, Chicago, IL.

Svihla, V., Gines, M., Yang, Y., & Collins, J., (04/2015). *Teachers as learners, then designe*rs. Paper presented at the AERA Annual Meeting, Chicago, IL.

Svihla, V., Reeve, R., Sagy, O., Kali, Y. (04/2015). *A Fingerprint Pattern of Supports for Teachers' Designing of Technology-Enhanced Learning*. Paper presented at the AERA Annual Meeting, Chicago, IL.

Tyson, K., **Svihla, V.,** Law, V., Collins, J., Stiles, A., Bryant, J., Kooser A., Donahue, M. (04/2015). *Designerly listening and learning*. Paper presented at the AERA Annual Meeting, Chicago, IL.

Bryant, J., Stiles, A., Collins, J., & **Svihla, V.** (02/2015). *"We are a family": Teachers' perceptions of how in-school relationships support literacy"* Paper presented at NCTEAR 2015 Mid-Winter Meeting, New Orleans, LA.

Yakes Jimenez, E., **Svihla, V.,** Castillo, T., McKay, T., Cantarero, A., Baumgardner, K., Kelley, P., Hernandez, I. (11/2014). *Interactive Learning Assessment: Simulating professional practice*. Agri-Science Education for the 21st Century: Diversity, Access, Success. Miami, FL.

Svihla, V., Gines, M., Yang, Y. (10/2014*). Teachers as learners, then designers: Shifting from Instructionist to Constructionist Approaches.* Paper presented at FabLearn 2014, Stanford, CA.

Stiles, A. Bryant, J., & **Svihla, V.** (06/2014) *Contexts of assessment.* Paper presented at the 11th International Conference of the Learning Sciences (ICLS2014): Boulder, CO.

McKay, T., Cantarero, A., **Svihla, V.**, Yakes Jimenez, E., & Castillo, T. (06/2014). *Becoming a professional through virtual practice.* Paper presented at the 11th International Conference of the Learning Sciences (ICLS2014): Boulder, CO.

Livingston, A., Collins, J., Kooser, A., & **Svihla, V.** (06/2014). *Teachers becoming (temporary) engineers to become better teachers.* Paper presented at the 11th International Conference of the Learning Sciences (ICLS2014): Boulder, CO.

Svihla, V., Knottenbelt, S., & Buntjer, J. (04/2014). *Learning through designerly practices.* Paper presented at the AERA Annual Meeting, Philadelphia, PA.

Svihla, V. (04/2014). *Engage, Explore, Enact: Teachers' Designs for Immersive Media*. In symposium (Ching, C. C., Johnson-Glenberg, M. C., Svihla, V., Lee, V., & Clark) Of bodies and minds: Immersive physical sensor technologies and STEM learning. Paper presented at the AERA Annual Meeting, Philadelphia, PA.

Yakes, E., Cantarero, A., McKay, T., **Svihla, V.**, Castillo, T., Valdez, I., Hertel, J. (10/2013). *Interactive Learning Assessments.* Paper presented at the Fifth Annual Innovations in Practice & Education at FNCE 2013 Conference, Houston. TX. ***Selected as 1 of 20***

innovations.

Yakes, E., Cantarero, A., McKay, T., **Svihla, V.**, Castillo, T., Valdez, I., Hertel, J. (06/2013). *Interactive Learning Assessment: Simulating professional practices.* Paper presented at the 2013 NACTA Conference, Blacksburg, VA.

Svihla, V., Yakes, E., Castillo, T., Cantarero, A., Valdez, I., & Dominguez, N. (06/2013). *Interactive Learning Assessment: Providing context and simulating professional practices.* Paper presented at the Games, Learning, Society, Madison, WI.

Svihla, V., Kvam, N., Dahlgren, M., Bowles, J., & Kniss, J. (06/2013). *We can't just go shooting asteroids like space cowboys: The role of narrative in immersive, interactive simulations for learning.* Paper presented at the Games, Learning, Society, Madison, WI.

Reeve, R., & **Svihla, V.** (06/2013). *Design in the world AND our work.* Paper presented at the 10th International Conference on Computer Supported Collaborative Learning, Madison, WI.

Svihla, V., Kvam, N., Dahlgren, M., Bowles, J., & Kniss, J. (06/2013). *Extending inquiry and surfacing questions: Collaborative learning with immersive, interactive projection.* Paper presented at the 10th International Conference on Computer Supported Collaborative Learning, Madison, WI.

Svihla, V., Dahlgren, M., Kvam, N., Bowles, J., & Kniss, J. (04/2013). *We can't just go shooting asteroids like space cowboys: Teaching and learning with immersive, interactive projection.* AERA Annual Meeting. San Francisco, CA.

Liu, O. L., Ryoo, K., Sato, E., **Svihla, V.**, & Linn, M. C. (04/2013). *Designing assessment to measure cumulative learning of energy topics.* Paper presented at the AERA Annual Meeting, San Francisco, CA.

Svihla, V. and Linn, M.C. (07/2012). *Distributing practice: Challenges and opportunities for Inquiry learning*. Paper presented at the 10th International Conference of the Learning Sciences, Sydney, Australia.

Sato, E. and **Svihla, V.** (07/2012). *Scaffolding collaborative sensemaking during Critique of explanations in technology-enhanced science curriculum*. Paper presented at the 10th International Conference of the Learning Sciences, Sydney, Australia.

Svihla, V. (02/2012). *Visualizing global climate change: Web-based inquiry science environment*. Paper presented at the Annual Meeting of the American Association for the Advancement of Science (AAAS), Vancouver, BC, Canada.

Svihla, V. (06/2011). *Formulating WISE learning experiences*. Paper presented at the 9th International Conference on Computer Supported Collaborative Learning, Hong Kong.

Visintainer, T., **Svihla. V,** and Linn, M.C. (05/2011). *Exploring trajectories of students' understanding of everyday energy use and mechanisms of global climate change.* Paper presented at the 41st Annual Meeting of the Jean Piaget Society, Berkeley, CA.

Danielak, B. and **Svihla, V.** (05/2011). *Why early courses matter for design-focused engineering capstones*. Paper presented at the 41st Annual Meeting of the Jean Piaget Society, Berkeley, CA.

Svihla, V., Visintainer, T., & Linn, M. C. (04/2011). *A design-based approach to fostering understanding of global climate change*. Paper presented at the AERA annual meeting, New Orleans.

Visintainer, T., **Svihla, V.**, & Linn, M. C. (04/2011). *Empowering students through exploration of everyday actions and mechanisms of global climate change*. Paper presented at

the AERA annual meeting, New Orleans.

Svihla, V. & Martin, T. (02/2011) *Interaction, identity, and innovation in design learning.* Paper presented (virtual) at the Design Principles and Practices Conference, Rome, Italy.

Svihla, V. (06/2010*). Contingent identification in a biomedical engineering classroom.* Paper presented at the Ninth International Conference of the Learning Sciences, Chicago, IL.

Svihla, V., Gawel, D. J., Brown, M., Moore, A., Vye, N. J., & Bransford, J. D. (06/2010). *21st Century assessment: Redesigning to optimize learning.* Paper presented at the Ninth International Conference of the Learning Sciences, Chicago, IL.

Svihla, V. (06/2010*). Measuring Cumulative Learning of Energy Ideas Across Disciplines.* Symposium presented at the Ninth International Conference of the Learning Sciences, Chicago, IL.

Visintainer, T. & **Svihla, V.** (06/2010). *Redesigning the Global Climate Change Project for Cumulative Learning.* Symposium presented at the Ninth International Conference of the Learning Sciences, Chicago, IL.

Svihla, V. (10/2009). *Collaboration and framing as dimensions of design innovation.* Paper presented at the seventh ACM conference on Creativity and cognition (C&C '09), Berkeley, California.

Svihla, V. (07/2009). *Triangulation of process and product data for understanding learning in the context of biomedical engineering design*. Paper presented at the 5th International Mixed Methods Conference, Leeds, UK.

Svihla, V. (06/2009). *Methods for triangulation and revealing interaction.* Paper presented at Computer Supported Collaborative Learning, Rhodes, Greece.

Svihla, V., Phillips, R., Gawel, D. J., Vye, N. J., Brown, M., & Bransford, J. D. (06/2009). *A tool for 21st century learning and assessment.* Paper presented at Computer Supported Collaborative Learning, Rhodes, Greece.

Svihla, V., Petrosino, A. J., & Diller, K. (04/2009). *Learning to design: Interactions and distributed cognition* Paper presented at the AERA annual meeting, San Diego.

Phillips, R., Gawel, D. J., **Svihla, V.**, Brown, M., Vye, N., & Bransford, J. (04/2009). *New technology supports for authentic science inquiry, practice, and assessment in the classroom.* Paper presented at the AERA annual meeting, San Diego.

Bransford, J., Gawel, D. J., Phillips, R., **Svihla, V.**, Vye, N., Brown, M., et al. (10/2008). *New approaches to 21st century schooling: Preparation for future learning assessments and their instructional implications.* Paper presented at the International Conference on Assessment for Learning in Science, Center for the Assessment and Evaluation of Student Learning (CAESL), San Francisco.

Svihla, V., & Petrosino, A. J. (06/2008). *Improving our understanding of K-12 engineering education.* Paper presented at the International Conference on Engineering Education, Pécs, Hungary.

Svihla, V., Petrosino, A. J., Martin, T., & Diller, K. R. (06/2008). *Learning to design: Interactions that promote innovation.* Paper presented at the International Conference on Engineering Education, Pécs, Hungary.

Svihla, V., Petrosino, A. J., & Diller, K. R. (06/2008). *Distributed cognition and interactions in the context of bioengineering design.* Paper presented at the 8th International Conference of the Learning Sciences, Utrecht, The Netherlands.

Gawel, D. J., Phillips, R., **Svihla, V.**, Vye, N. J., & Bransford, J. D. (06/2008). *Considerations for the development of a Preparation for Future Learning Assessment.* Paper presented at the 8th International Conference of the Learning Sciences, Utrecht, The Netherlands.

Petrosino, A. J., **Svihla, V.**, & Kapur, M. (06/2008). *Models of expertise in process- and content-dominated areas of bioengineering.* Paper presented at the 8th International Conference of the Learning Sciences, Utrecht, The Netherlands.

Svihla, V., Petrosino, A. J., Martin, T., Rayne, K., Rivale, S. R., & Diller, K. R. (03/2008). *Learning to Design: The role of authenticity and the distribution of cognition in student design teams.* Paper presented at the AERA annual meeting, New York, NY.

Svihla, V., Petrosino, A., & Diller, K. (09/2007). *Distributed expertise and authenticity in the development of design expertise.* Paper presented at the International Conference on Engineering Education, Coimbra, Portugal.

Weusijana, B. K. A., Gawel, D. J., **Svihla, V.**, & Bransford, J. D. (08/2007). *Learning about adaptive expertise in a multi-user virtual environment.* Paper presented at the Second Life Community Convention, Education Track, Chicago, IL.

Svihla, V., Rivale, S., Rayne, K., Martin, T. Petrosino, A., and Diller, K. (04/2007). *Adaptive expertise across a major,* Paper presented at the AERA annual meeting, Chicago.

Gawel, D. J., **Svihla, V.**, Weusijana, B. K. A., & Bransford, J. D. (04/2007). *Exploring adaptive expertise virtual environments: blending and flipping.* Paper presented at the AERA annual meeting, Chicago.

Svihla, V., Petrosino, A., Rayne, K., and Diller, K. (03/2007). *The role of community in the development of adaptive expertise in bioengineering design,* Paper presented at the 2007 ASEE Gulf-Southwest Annual Conference, South Padre Island, TX. ***Nominated for Honors.***

Petrosino, A. J., **Svihla, V.**, & Kapur, M. (06/2006). *Calculating expertise in bioengineering education,* Paper presented at the 9th International Conference on Engineering Education, San Juan, Puerto Rico.

Svihla, V. (06/2006). *Formative assessment: reducing math phobia and related test anxiety in a geology class for non-science majors.* Paper presented at the 7th International Conference of the Learning Sciences, Bloomington, IN.

Martin, T., Petrosino, A., Rivale, S., Rayne, K., Pierson, J., Svihla, V., & Diller, K. (04, 2006). *The Legacy Cycle as a Resource for Curriculum Development*. Paper presented at the AERA annual meeting, San Francisco, CA.

Barr, R., Pandy, M., Petrosino, A., & **Svihla, V.** (10/2005). *Challenge-based instruction: the VanTH biomechanics learning modules.* Paper presented at the 35th ASEE/IEEE Frontiers in Education Conference, Indianapolis, IN.

Svihla, V., Ellins, K., & Fennell, T. (05/2004). Effective problem-based activities; imparting content and learning skills through a debate on the K-T extinction event. *Geological Society of America, Rocky Mountain (56th Annual) and Cordilleran (100th Annual) Joint Meeting 36*(4), 89, Boise, ID.

Svihla, V. & Mosher, S. (05/2004). Structural evolution of the east central Big Maria Mountains, Maria fold and thrust belt, southeastern California. *Geological Society of America, Rocky Mountain (56th Annual) and Cordilleran (100th Annual) Joint Meeting, 36*(4), 34-35, Boise, ID.

Invited Presentations, including as Discussant and Keynote speaker (26)

Bishop, MJ., Elen, J., Boling, E., & **Svihla, V.** (05/2016). *Shaping the content of our field's*

next research handbook. [Webinar], AECT.

Svihla, V. (04/2016). Session Discussant. *Designing Technology-Supported Learning Environments,* AERA, Washington, DC.

Svihla, V. (03/2016). *Theory and affordances of Social Network Analysis for the study of learning through designing*, University of Texas, Austin.

Svihla, V. (10/2015). *Learning to design & designing to learn*. National Academy of Education Annual Meeting. Washington, DC.

Bishop, M., Boling, E., Elen, J. & **Svihla, V.** (11/2015). *AECT - Shaping the Content of our Field's Next Research Handbook,* AECT, Indianapolis, IN.

Svihla, V. (10/2015). *Finding and telling the story in the data*, Keynote speaker, New Mexico Evaluators Conference, Albuquerque, NM.

Norris, A., Martin, C. & **Svihla, V.** (05/2015). *Critiques of Design-Based Research in the Field: Stories from the field [Webinar]*, DML Commons.

Svihla, V. (05/2015). *Designing learning opportunities and resilience.* Invited poster for *Excellence in education research: Early career scholars and their work*, AERA, Chicago, IL.

Svihla, V. (02/2015). *Interdisciplinary problem framing: opportunities for learning.* Invited talk. Center for Research on Learning and Technology, Indiana University.

Weisburd, S. & **Svihla, V.**, (11/2014). *Research Experiences for Teachers, UNM School of Engineering K12 outreach program.* Invited session. Community Engaged Scholarship Forum, Albuquerque, NM.

Svihla, V., Yakes Jimenez, E., Castillo, T., & McKay, T., (06/2014*) Interactive Learning Assessment: Simulating professional practice.* Invited session. Elevating Science and Education: IRACDA 2014, Albuquerque, NM.

Voogt, J., McKenney, S.E., Kali, Y., Breuleux, A., Cober, R., Slotta, J., Eylon, B-S., Itow, R., Könings, K., Laferrière, T., Linn, M.C., Markauskaite, L., Matuk, C., Reeve, R., Sagy, O., So, H-J., **Svihla, V.,** Tan, E. (07/2014). *Designing for Teachers' Designing of Technology-Enhanced Learning.* Invited Session. International Conference of the Learning Sciences, Boulder, Colorado.

Svihla, V. (10/2013). *How people learn: Lessons for UNM.* Invited presentation to the UNM Board of Regents' Academic/Student Affairs & Research Committee.

Svihla, V. (08/2013). *Advances in design-based research in the learning sciences: EARLI meets Learning Sciences: Can we take advantage of the methodological advances from each other?* Invited Symposium. Paper presented at the 15th Biennial EARLI Conference for Research on Learning and Instruction: 'Responsible Teaching and Sustainable Learning, Munich, Germany. Invited by ISLS president and executive Committee of EARLI.

Svihla, V. (2013). Session Discussant, *Embodiment and learning*. AERA Learning Sciences SIG, Learning Sciences SIG, Paper Session.

Svihla, V. (2013). Session Discussant*, Reasoning and learning in engineering and computer science education.* AERA Division C.

Linn, M. C., Liu, O. L., Ryoo, K., **Svihla, V.**, & Sato, E. (04/2013). Invited session: *Big data: New Opportunities for measurement & data analysis: Interpreting student progress from embedded assessments: Expanding item types for assessing inquiry*. Paper presented at the NCME, San Francisco, CA.

Svihla, V., Kniss, J., Waldschmidt, E., Beining, D., Strawn, J., Hagerman, A., Dahlgren, M., Kvam, N., & Bowles, J. (03/2013). *Supporting practice, integrating research in immersive technologies into educational designs.* Invited roundtable at Graduate Student Colloquium Kick-Off, UNM.

Svihla, V. (11/2011). *Distributing practice and cumulative learning: How the fragmented curriculum structures revisiting.* Invited talk at the Cumulative Learning Embedded Assessment Results Advisory Board meeting, University of California, Berkeley.

Svihla, V. (2011). Session Discussant, *Judgment, perspectives, and reflection in instructional design learning and practice*. AERA Design and Technology SIG.

Svihla, V. (2011). Session Discussant, *Discussions in the learning sciences.* AERA.

Svihla, V. (05/2010). *Modeling and integrative analysis of learning in two contexts*. Invited talk at SRI.

Svihla, V. (04/2010). *New learning practices and paradigms*, Invited panelist, Next Generation Teaching and Learning Symposium, School of Information, University of California, Berkeley.

Svihla, V. (02/2010). *Innovation, interaction, and identity: learning and becoming in biomedical engineering.* Invited talk at the Graduate School of Education, University of California, Berkeley.

Svihla, V. (11/2009). *Innovation and Identity in design learning.* Invited talk at the Berkeley Institute for Design, University of California, Berkeley.

Svihla, V. (04/2008). How differences in distributed cognition and interactions affect learning and development of design expertise in the context of bioengineering design. Invited talk, dolceLab, Pennsylvania State University.

Congressional and Legislative Presentations (3)

K-12 STEM education (09/2013). Presentation to the Science, Technology, Telecommunications Committee, Albuquerque, NM.

Performance assessments, (09/2013). Presentation to the Legislative Education Study Committee, Clovis, NM

STEM education at UNM (08/2012). Presentation to the New Mexico congressional and legislative staffers, Albuquerque, NM.

Professional Workshops (15)

Bishop, MJ., Elen, J., Boling, E., & **Svihla, V.** (04/2016). *Shaping the content of our field's next research handbook. [Advisory Board session]*, AERA preconference, hosted by AECT.

Svihla, V., Law, V., Pun, A., Knottenbelt, S., Smith, G.A., Stark, A.M., Sanchez, D., Collins, J., & Jordan, M. (11/2015). *Socially Shared Regulation in Discipline Based Research*, Southwest Consortium of Innovative Psychology in Education, Albuquerque, NM.

Bodman, G., White, L., **Svihla, V.,** Weisburd, S., Fleddermann, C. (11/2015). *Energizing Engineering Education (E3)*. Posters presented at the New Mexico Science Teacher Association Fall conference, Hobbs, NM.

Plaza, A., Carla, G., Salter, S., Arguello, P., Colon, A., Adams, C., Burt, R., Martinez, R., **Svihla, V.,** Weisburd, S., Fleddermann, C. (11/2014). *Energizing Engineering Education (E3)*. Posters presented at the New Mexico Science Teacher Association Fall conference, Albuquerque, NM.

Svihla, V., Gines, M., & Yang, Y., (09/2014). *UNM Digital Design + Fabrication + 3D Printing*, Albuquerque Mini Maker Faire.

Svihla, V. (06/2014) *Designing STEM Project Based Learning Experiences.* New Mexico Public Education Department STEM Symposium.

Svihla, V. (06/2014) *Performance Assessments*. New Mexico Public Education Department STEM Symposium

Plaza, A., Carla, G, Ketchum, C., Salter, S., Arguello, P., Colon, A., Adams, C., Burt, R., Martinez, R., **Svihla, V.,** Weisburd, S., Fleddermann, C. (10/2013) *Energizing Engineering Education (E3).* Workshop at the New Mexico Science Teacher Association Fall conference.

Kvam, N., Spiess, S., Dahlgren, M., & **Svihla, V.**, (10/2012). *Designing STEM Project-Based Learning Experiences*, Workshop at the New Mexico Science Teacher Association Fall conference.

Svihla, V., Kniss, J., Waldschmidt, E., Beining, D., Strawn, J., and Hagerman, A., (06/2012). Supporting Practice, Integrating Research in Immersive Technologies into Educational Designs (SPIRITED): Teachers as Designers, Kali, Y., & McKenney, S (Eds.) *Teachers as Designers of Technology Enhanced Learning Materials,* organized by Yael Kali and https://sites.google.com/site/teachersasteldesigners/.

Svihla, V., Kniss, J., Dahlgren, M., Kvam, N., Waldschmidt, E., Beining, D., Strawn, J., and Hagerman, A., (06/2012). Supporting Practice, Integrating Research in Immersive Technologies into Educational Designs (SPIRITED): Technology to Support Co-located Collaborative Learning, Dillenbourg, P., Slotta, J., Tissenbaum, M., Schwendimann, B., Martinez, R., Clayphan, A., & Ackad, C., (Eds.), *Digital Ecosystems for Collaborative Learning: Embedding Personal and Collaborative Devices to Support Classrooms of the Future (DECL),* https://sites.google.com/site/iclsdecl/.

Molennar, I., Chiu, M., Wise, A., Haugan Cheng, B., & **Svihla, V.**, Suthers, D., (02/2013). *It's about Time: Addressing the Many Challenges of Analyzing Multi-Streamed Temporal Data.* Accepted for the Alpine Rendez-vous, Grenoble, France.

Haugan Cheng, B., Molennar, I., Chiu, M., & **Svihla, V.**, Wise, A., Peters, V.L., & Zourou , K., (06/2010). *It's about Time: Purpose, methods and challenges of temporal analyses of multiple data streams*, International Conference of the Learning Sciences, Chicago, IL.

Svihla, V. (04/2010). *Assessments as Complex Systems Learning Events: Tensions and Opportunities*, Carleton College, Northfield, MN.

Haugan Cheng, B., Cakir, M., Kapur, M., Peters, V.L., **Svihla, V.**, Wise, A., Zimmerman, T., & Zourou, K., (11/2009). *It's about time: Exploring temporality in group learning*, Alpine Rendez-vous, Garmisch-Partenkirchen, Germany.

Svihla, V., (05/2005). Formative assessment: reducing math phobia and related test anxiety in a geology class for non-science majors. Paper presented at the *On the Cutting Edge: Professional development for geoscience faculty: Understanding what our geoscience students are learning: Observing and assessing*, Carleton College, Northfield, MN.

Non-Refereed Presentations (7)

Pun, A., Knottenbelt, S., Law, V., Smith, G.A., Stark, A.M., Sanchez, D., **Svihla, V.**, (08/2015). *Educational outcomes and student perceptions of introductory science instruction in studio classrooms at an ethnically and socioeconomically diverse large university.* 3rd Biennial National Forum on Active Learning Classrooms, Minneapolis, MN.

Svihla, V., Barber, H., Sanchez, J., Martinez, L., Wright, E., Purrington, K., Pino, J.,

Turner, W. & Diaz, L., (11/2014). *Client-driven instructional design: Believe in the process!* Community Engaged Scholarship Forum, Albuquerque, NM.

Cantarero, A., McKay, T., Hertel, J., Baumgartner, K., Valdez, I., Yakes-Jimenez, E., **Svihla, V.**, & Castillo, T. (11/2013). *Interactive Learning Assessment System*, Poster presented at IFCE Research Showcase. UNM

Svihla, V., Yakes, E., Cantarero, A., Valdez, I., & Castillo, T., (03/2013). *Interactive Learning Assessment*, Panel presented at New Mexico Higher Education Assessment and Retention Conference. Albuquerque, NM.

Svihla, V., Yakes, E., Castillo, T.,Valdez, I., Dominguez, N. Cantarero, A. (02/2013). *Interactive Learning Assessment: Simulating professional practices*. 8th Annual UNM Community Conference: Success in the Classroom. UNM.

Cantarero, A., Dominguez, N., Valdez, I., Yakes, E., **Svihla, V.**, & Castillo, T. (11/2012). *Interactive Learning Assessment System*, Poster presented at IFCE Research Showcase. UNM. ***Greatest Impact award.***

Cantarero, A., Dominguez, N. Valdez, I., Yakes, E., **Svihla, V.**, & Castillo, T., (10/2012). *Interactive Learning Assessment System*, Poster presented at Project Director site visit, Washington D.C.

Instructional Technology

Interactive Learning Assessments (ILAs). ILAs merge embed assessment in learning experiences. Learners take on the role of expert and give counsel to virtual clients/patients, using resources to learn.

Yakes, E., **Svihla, V.**, Castillo, T., Cantarero, A., McKay, T., Valdez, I., Hertel, J., & Dominguez, N. (2012) *Nutrition Counselor*, (http://iddea.unm.edu/)

Gawel, D. J., Phillips, R., **Svihla, V.**, Vye, N. J., & Bransford, J. D. (2008). *Genetics Counselor*. (http://life-slc.org/assessment2/)

Gawel, D. J., Phillips, R., **Svihla, V.**, Vye, N. J., & Bransford, J. D. (2007). *Conservation Geneticist.* (https://catalyst.uw.edu/webq/survey/djgawel/54822)

Web-based Inquiry Science Environment (WISE) Unit. **Svihla, V.** (2010). *Global Climate Change*, WISE4. (http://wise4.berkeley.edu/webapp/vle/preview.html?projectId=100)

Media Recognition

(06/2016) UNM project a finalist for diversity award at national conference. *UNM Today*. K. Delker. http://news.unm.edu/news/unm-project-a-finalist-for-diversity-award-at-national-conference

(11/2015) Three UNM faculty named National Academy of Education / Spencer Postdoctoral Fellows. *UNM Today.* A. Flores-Thorpe. http://news.unm.edu/news/three-unm-faculty-named-national-academy-of-education-spencer-postdoctoral-fellows

(07/2014) Teachers get science lessons of their own this summer. *UNM Today.* K. Delker. http://news.unm.edu/news/teachers-get-science-lessons-of-their-own-this-summer

(08/2013) New schools seek new measurement for success. *Albuquerque Business First.* D. Domrzalski. http://www.bizjournals.com/albuquerque/print-edition/2013/08/23/new-schools-seek-new-measurement-for.html

(09/2013) Finding a new way to measure learning. *Albuquerque Journal.* H. Heinz. http://www.abqjournal.com/256943/finding-a-new-way-to-measure-learning.html

(06/2012) Immersed in Media. *UNM Today*. S. Krosinsky.

Research Lab: *Interaction and Disciplinary Design in Educational Activity* (IDDEA) Lab

Director and founder. With Kersti Tyson and Victor Law.
https://sites.google.com/site/iddealab/

Grants

External, Funded (10)

Principal Investigator, ECMC Foundation (FY16-FY19, $84,506). *Leadership High School Network Proposal*. Subcontract from New Mexico Center for School Leadership.

Co-principal Investigator, NSF (FY17-21, $1,999,957, EEC #1623105). *IUSE/PFE:RED: FACETS: Formation of Accomplished Chemical Engineers for Transforming Society*. With PI Datye, SOE & Co-PIs Chi & Han, SOE, & Kang, OILS.

Co-principal Investigator, NSF (FY16-17, $195,000, CISE #1240992). Supplement to *CS 10K: New Mexico Computer Science for All (NM CSforAll)*. With PI Melanie Moses, SOE, Co-PI Tryphenia Peele-Eady, COE, Co-PI Woong Lim, COE.

Co-principal Investigator, NSF (FY16-17, $149,998, EEC #1544233). *PFE: Research Initiation—Using Digital Badging and Design Challenge Modules to Develop Professional Identity*. With PI Datye, SOE, Co-PI Gomez, SOE.

Principal Investigator, NAEd/Spencer Postdoctoral Fellowship (FY15-FY16, $55,000). *Learning to design and designing to learn*.

Grant writer, Kellogg Foundation (FY15, $1,000,000). *Supporting Transformative Action in Reciprocity Together* (START). PI Provost Chaouki Abdallah.

Co-principal Investigator, NSF RET (FY14-17, EEC #1301373, $509,543), *Energizing Engineering Education (E3): An RET site at the University of New Mexico investigating energy research and engineering practice*. PI Chuck Fleddermann, SOE.

Key Personnel, NSF-DUE: Activities to conduct planning workshops or conferences: *Regional workshop for Discipline-Based Educational Researchers*. (FY14, TUES #1316636, $17,674) with PI Martina Rosenberg, Co-PI Marcy Osgood, and Key personnel Sergio De Haro.

Research Principal Investigator, USDA/NIFA Hispanic-Serving Institutions (HSI) Education Grants Program (FY13-16, #2012-38422-19836, $280,000). *Interactive Learning Assessment System*, with Administrative PI Beth Yakes Jimenez, IFCE, Nutrition, Tim Castillo (Director, ARTS Lab).

Grant writer. NSF MSP Grant, (FY09-12, DUE #0831811, 9.2 million). *UTeach Engineering: Training Secondary Teachers to Deliver Design-Based Engineering Instruction*, University of Texas at Austin, with PI David T. Allen.

Internal, Funded (5)

Principal Investigator, Interdisciplinary Summer Research Funding, UNM. (FY15, $49,980 including matching and in-kind). *Framing, Learning, Interactive Prototyping (FLIP)*, with Co-PIs Yin Yang (SOE) Trish Steinbrecher (COE) and Matthew Gines (SA+P).

Principal Investigator, Tier 1 Interdisciplinary Summer Research Funding, UNM. (FY14, $117,199, including matching and in-kind). *Performance Assessments are Rich and Reliable (PARR)*, with Co-PIs Sushilla Knottenbelt, Martina Rosenberg, Tim Castillo, Tony

Monfiletto, Tori Stephens-Shauger, Gabriella Duran Blakey, Joshua Krause, Timothy Kubik, Larry Myatt, Katrina Kennett.

Principal Investigator, Tier 1 Interdisciplinary Summer Research Funding, UNM. (FY13, $58,357, including matching funds from SOE). *Supporting Practice, Integrating Research in Immersive Technologies into Educational Designs (SPIRITED)*, with Co-PI Joe Kniss (SOE), Eileen Waldschmidt (COE), Jonathan Strawn (ARTS Lab), David Beining (ARTS Lab), and Allison Hagerman (ARTS Lab).

Co-Principal Investigator, University of New Mexico Teaching Allocation Grant (TAG) (FY12, #734059 $4,980). *Interactive Learning Assessment*, with Co-PI Beth Yakes, IFCE, Nutrition Program, UNM, and Tim Castillo (Director, ARTS Lab).

Principal Investigator, University of New Mexico Overhead Funds Allocations Committee (OFAC) Grant (FY12, $2,000). *Design Learning: Interactions and Learning related to Designerly Practices*.

External, Pending (0)

External, Declined (21)

Co-principal Investigator, NSF (submitted 2/2016, $3,000,000, DGE # 1633199). *NRT: Nanoscience to Manufacturing - Bridging the Innovation Gap.* With PI Han, SOE & Co-PIs Leseman, SOE; Grey, A&S; Kassicieh, ASM, & West, BYU.

Co-principal Investigator, NSF (submitted 5/2015, $499,983, DGE #1545506). *NRT-IGE: Graduate Innovation Academy.* With PI Datye, SOE, Co-PI DelCampo, ASM.

Co-principal Investigator, NSF (submitted 3/2015, $499,857.00, ICER 1540759). *GP-IMPACT: GeoAcequias at the University of New Mexico.* With EPS PI Laura Crossey, Co-PIs Joseph Galewsky, Yemane Asmerom, & Karl Karlstrom, EPS.

Co-principal Investigator, NSF (submitted 11/2014, $1,886,672, EEC #1519422). *IUSE/PFE:RED: Revolutionizing the Core of Chemical Engineering to Enhance Success in a Diverse Environment.* With PI Datye, SOE, Co-PI Canavan, SOE, & Co-PI Han, SOE, Co-PI Howell, COE.

Principal Investigator, NSF Cyberlearning (Submitted 12/2014, $436,001, IIS #1523219), *Framing, Learning, Interactive Prototyping (FLIP)*, with Co-PIs Yin Yang (Electrical and Computer Engineering), Matthew Gines (Architecture) and Balakrishnan Prabhakaran (Computer Science, UT-Dallas).

Co-principal Investigator, NSF SaTC-EDU: EAGER: Collaborative: *Choices - An interactive approach to creating ethics case studies* (submitted 10/2014, $270,000, CNS #1500085). With PI Kelley, UNM SOE, Co-PI Castillo, UNM ARTS Lab, & Co-PI Pimple, Indiana University Center for Bioethics.

Co-principal Investigator, NSF LSAMP (submitted 11/2013, $348,306, HRD #1410872). *Supporting Opportunities for Learning Authentically for Retention* (SOLAR). With PI Sax, UNM-Valencia, and Co-PI Balakrishnan, SOE.

Co-principal Investigator, NSF ITEST (submitted 2/2014, $1,066,887, DRL #1433791). *Adopt a Pixel*. With PI Allen, Sigma Space Corp, Co-PI Headley, Black Hills State University.

Principal Investigator, NSF Cyberlearning (Submitted 3/2014, $433,028, IIS #1441129), *Framing, Learning, Interactive Prototyping (FLIP)*, with Co-PIs Yin Yang (Electrical and Computer Engineering), Matthew Gines (Architecture) and Balakrishnan Prabhakaran (Computer Science, UT-Dallas).

Co-principal Investigator, NSF EEC (submitted 1/2014, $300,000, EEC #1429179). *An Engine to the Future: Associate's to Bachelor's Degrees in Engineering*. With Principal Investigator Richard Sax and Co-PIs Annette Hatch, Ganesh Balakrishnan, Charles Fleddermann.

Principal Investigator, NSF REAL (submitted 1/2014, $498,653, HRD #1420434). *Special Organizing and Planning Supports* (Special OPS). With Co-PI Steinbrecher and Co-PI Brindle.

Consultant, NIH (submitted 6/2013, $1,933,619), *RISE LOBOS: Leadership Opportunities in Biomedical engineering, Outreach & Service*, with PI Heather Canavan, SOE.

Principal Investigator, NSF CAREER (submitted 07/2013, resubmission). *Exploring Teaching and Learning in Interdisciplinary Design* (ELaTID).

Principal Investigator, American Honda Foundation (Submitted 6/2013), *Developing Underutilized Methods for Promoting Sustainable, Transformative Education & Research* (DUMSPTER). With Co-PI Jeff Wilson (Huston-Tillotson).

Co-principal Investigator, NSF Noyce (submitted 3/2013). *Putting the "A" back in Alternative Licensure (PAL): An Innovative Approach to Tackling Math/Science Education in New Mexico*. With PI Tariq Khraishi (Engineering), and Co-PIs Justin Boyle (Teacher Education), Kristin Umland, (Mathematics), & Kuangchiu Ho (Chemistry).

Principal Investigator, NSF Cyberlearning (submitted 12/2012). *Supporting Practice, Integrating Research in Immersive Technologies into Educational Designs (SPIRITED)*, with Co-PI Joe Kniss (Computer Science), Co-PI Justin Boyle (Teacher Education), Eileen Waldschmidt (Teacher Education), David Beining, (ARTS Lab), and Richard Rand (Physics & Astronomy).

Principal Investigator, NAE/Spencer Postdoctoral Fellowship (submitted 11/2012). *Learning to design and designing to learn*.

Principal Investigator, NSF CAREER (submitted 07/2012, rated Competitive). *Exploring Teaching and Learning in Interdisciplinary Design* (ELaTID).

Co-Principal Investigator, NSF expeditions preproposal, (submitted 06/2012), *Expeditions in Computing: RoboBespoke – Computational Clothing Design & Assembly*, with PI Terran Lane, Lydia Tapia, and Pradeep Sen.

Grant writing (submitted 03/2012), NM EPSCoR Research Infrastructure Improvement (RII) proposal, based on white paper and Kellogg Logic Model submissions, *Science Inquiry with Visualizations and Interactive Technologies (SIVIT)*.

Principal Investigator, NSF Cyberlearning (submitted 12/2011, $405,745). *Supporting Project-based Practices Integrating Research on Immersive Technologies (SPPIRIT),* with Co-PI Joe Kniss (Computer Science), Eileen Waldschmidt (Teacher Education), and David Beining, (ARTS Lab).

Awards/Honors

Best Diversity Paper, ASEE 2016.

Attendee (selected), AERA Conference on Making and Learning, 2016.

NAEd/Spencer Postdoctoral Fellow, 2014 cohort.

Greatest Impact award, *Interactive Learning Assessment System*, IFCE Research Showcase, 11/2012.

Early Career Consortium Attendee, Computer Supported Collaborative Learning, Summer 2011.

Early Career Consortium Attendee, Computer Supported Collaborative Learning, Summer 2009.

Addison E. Lee Scholarship, Fall 2008-Spring 2009.

University of Texas Graduate Merit Fellowship, Fall 2008-Spring 2009.

Doctoral Consortium Attendee, ICLS Summer 2008.

Honorable Mention, Best Student Paper, AERA SIG ATL/LS, Spring 2008.

University Continuing Fellow, Fall 2007-Spring 2008.

Laura Thompson Barrow Fellowship, Fall 2003.

George W. Marshall Jr. Memorial Endowed Presidential Scholarship, Fall 2002-Spring 2003.

John A. and Katherine G. Jackson Endowed Fund, Fall 2002-Spring 2003.

Departmental Outstanding Teaching Assistant, Spring 2001.

Service

Professional, External Service

Academic Advisory Board, *The Journal of Experimental Secondary Science*, 2011- current.

Panel Member, NSF review panel, Washington DC. (03/2013, 01/2013, 04/2012)

Organizing committee (submitted by University of Colorado, Boulder) for *International Conference of the Learning Sciences 2014*, Communications Chair, 2013-2014.

Supporting past-Chair, AERA SIG Learning Sciences, 2012-2013.

Committee Member, ISLS Education Committee. 2011-current. Head of evaluation subcommittee 2011-2013.

Chair & Program Chair, AERA SIG Learning Sciences, 2011-2012.

Co-Chair, AERA SIG Learning Sciences, 2010-2011.

Session Chair, AERA, six times 2008-2013.

Journal Reviewer, *International Journal of Designs for Learning* (2015-present)

Journal Reviewer, *Interdisciplinary Journal of Problem Based Learning* (2015-present)

Journal Reviewer, *Frontline Learning Research, European Association for Research on Learning and Instruction* (2014)

Journal Reviewer, *Journal of the Learning Sciences* (2010-present)

Journal Reviewer, *Journal of Science Education and Technology* (2014)

Journal Reviewer, *Learning, Media and Technology* (2014)

Journal Reviewer, *Instructional Science* (2012-present)

Journal Reviewer, *Cognition and Instruction* (2010-present)

Journal Reviewer, *International Journal of Science Education* (2011-present)

Journal Reviewer, *AERJ* (2012-present)

Journal Reviewer, *Mathematics and Computers in Simulation* (2012-2013)

Journal Reviewer, *INEER Innovations* (2007-2010)

Conference Reviewer, *FabLearn* (2014-current)

Conference Reviewer, *International Conference of the Learning Sciences* (2008-present)

Conference Reviewer, *Computer Supported Collaborative Learning* (2009-present)

Conference Reviewer, *AERA* (2017, 2 panels; 2016, 2 panels; 2015, 3 panels; 2014, 2 panels; 2013, 2 panels; 2011, 2 panels; 2010, 3 panels)

Conference Reviewer, *Games+Learning+Society* (2013)

Co-Founder, *Four Corners Learning Sciences* group, a regional collaborative to support research and graduate education on how people learn.

Graduate Student Representative, Design and Technology SIG, AERA, 2008-2009.

Session Organizer, "Adaptive Expertise: Its Development and the Role of Transfer," AERA, 2007.

University Service: University of New Mexico (2011-current)

Service Learning Advisory Board, Fall 2015-2017.

Library Committee, Fall 2014-2016.

Co-organizer, Interdisciplinary Salon, Summer 2012-Current.

Co-organizer, Discipline-Based Educational Research Seminar, Fall 2012.

Course improvement and professional development, Chemistry, Fall 2011- Fall 2013. Provided workshop on leading discussion in the sciences to chemistry TAs, on-going work to document the impact of instructional strategies, with Chemistry faculty Joe Ho and Sushilla Knottenbelt.

Project Evaluation Planning, UNM Computer Science, Fall 2011, Assisted CS Professor Joe Kniss in the development of an evaluation plan for his TAG.

University: College of University Libraries & Learning Sciences (2014-current)

Dean's Travel Fund Committee, Fall 2016-Spring 2017.

University: Organization, Information & Learning Sciences (2014-current)

CARC Program Assessment, Fall 2014-2017.

TPT Search Committee, Fall 2015, Summer 2016.

Search Committee, Fall 2014-Spring 2015.

University: College of Education Service (2011-2014)

Provost's Management Team, Fall 2013-Summer 2014.

Graduate Committee, Fall 2013-Spring 2014.

Ad hoc: Common Core State Standards, Spring 2012. Developed understanding of and strategies for the NM implementation of the CCSS.

Organizer, Mathematics, Engineering, Science, Health, and Technology (MESHT) Learning Cafe and Speaker Series, Spring 2012- Spring 2014.

University: Teacher Education Department Service (2011-2014)

Ad hoc service: tasked with TED website audit, Spring 2013.

Ad hoc service: program assessment for Advanced Degrees. Designed doctoral program assessments, Fall 2012-Spring 2013

Ad hoc service: NCATE, Standard 6, Spring 2013.

Ad hoc service: NCATE, Assessment focus, Spring 2013.

Ad hoc service: TED Reorganization. Spring 2013. Drafted and presented poster synthesizing new structure.

Ad hoc service: TED Reorganization. Fall 2012. Drafted and presented poster with proposal for new structure.

Secondary Education Search Committee, Fall 2012-Spring 2013.

Ad hoc service: Program Assessment, Secondary Education, Fall 2011-Spring 2012.

Secondary Education Search Committee, Fall 2011-Spring 2012.

University Service: University of California - Berkeley Graduate School of Education (2009-2011)

Seminar Leader, Randi Engle's Video Analysis Seminar, University of California, Berkeley. Summer 2010-Fall 2011. Organized and led summer meetings, then continued group in fall 2010 when R. A. Engle took medical leave.

Co-Leader, Marcia Linn's CLEAR Research Group, University of California, Berkeley. Summer 2009-2011.

Supervisor, Science and Mathematics Education Doctoral Students, Master's and Credential in Science and Mathematics Education Program, & Innovative media and technology for STEM education program.

University Service: University of Texas at Austin (2004-2009)

Contributed to ABET Inc. accreditation process in biomedical engineering. 2007-2009.

Supervisor, Taylor Martin's Active Learning Lab. Summer 2008-Summer 2009.

UTeach-Engineering Program Development, 2008-2009.

Community Service

Consultant, ACE Leadership High School, 2015-current. Advisory role (2012-2014). Visited school and met with principal to build relationship, visits to observe and provide feedback. Provide annual external reports on assessment practices.

Board member, New Mexico Partnership for Mathematics and Science Education, 2014-present.

School Quality Review team member, lead by Larry Myatt. Spring 2016.

Advisory Board Member, Project Learning Tree, 2012-2014.

Advisor, New Mexico Performance Assessment Network, convened by ACE Leadership, 2012-2014.

Participant, STEM Action Planning Summit, 11/8-11/9 2012, Santa Fe.

Participant, Smithsonian Institution National Science Resources Center, New Mexico LASER i3: Building awareness for Science Education Symposium 04/2012.

Participant, New Mexico Partnership for Mathematics and Science Education, 2012-2013

Participant, Santa Fe Institute's Business Network Topical Meeting, Science, Technology, Engineering, and Mathematics (STEM) Education and the U.S. Workforce Meeting, 9/2011, co-organized by The Boeing Company.

Panelist, Alumni Speaker Series, Goodwill Professions, Indiana Academy for Science, Mathematics, and the Humanities, 11/2007

Peace Corps Volunteer, Philippines, July 1998-May 2000. Led community workshops in methods of cave conservation, reforestation, and eco-tourism.

Membership in Professional Associations

American Educational Research Association. Divisions C and G; Special Interest Groups: Learning Sciences; Advanced Technologies for Learning; Design & Technology; Problem-Based Learning

American Society for Engineering Education

Society for Social Studies of Science

International Society of the Learning Sciences

International Network for Social Network Analysis

Design Research Society