

Peter Jacob Rich
Curriculum Vita
Associate Professor

Instructional Psychology & Technology
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Education/Certifications

<i>Doctor of Philosophy</i> 2007	University of Georgia <i>Instructional Technology</i>
The Interdisciplinary Qualitative Studies Graduate Certificate	Qualitative Inquiry Program University of Georgia
<i>Bachelors of Arts</i> 2001	Brigham Young University <i>Spanish</i>
<i>Teaching English to Speakers of Other Languages (minor)</i>	Brigham Young University

***Journal Articles**

- Mason, S. L., & Rich, P., J. (2020). Development and analysis of the elementary student coding attitudes survey. *Computers & Education*.
<https://doi.org/10.1016/j.compedu.2020.103898>.
- Peters-Burton, E. E., Rich, P. J., Cleary, T., Burton, S., Kitsantis, A., Egan, G. & Ellsworth, J. (2020). Using computational thinking for data practices in high school science. *The Science Teacher*, 87(6), 30-36.
- Fry Balci, L., Rich, P. J., & Roberts, B. (2020). The effects of subtitles and captions on an interactive information literacy tutorial for English majors at a Turkish university. *Journal of Academic Librarianship* 46 (1),
- Mason, S. L., & Rich, P. J. (2019). Preparing elementary school teachers to teach computing, coding, and computational thinking. *Contemporary Issues in Technology and Teacher Education* 19 (4), 790-824.
- Rich, P. J., Browning, S. F., Perkins, M., Shoop, T., & Yoshikawa, E. (2019). Coding in K-8: International trends in teaching elementary/primary computing. *TechTrends* 63, 311-329. <https://doi.org/10.1007/s11528-018-0295-4>
- McDonald, J. K., West, R. E., Rich, P. J., & Pflieger, I. (2019). It's So Wonderful Having Different Majors Working Together": The Development of an Interdisciplinary Design Thinking Minor. *TechTrends*. <https://doi.org/10.1007/s11528-018-0325-2>

* Except for *Educational Technology*, which is editorial review, all other journals are peer-reviewed journals.

- Chapman, J. R. & Rich, P. J. (2018) Does educational gamification improve students' motivation? If so, which game elements work best?, *Journal of Education for Business*, 93(7), 315-322, DOI: 10.1080/08832323.2018.1490687
- Rich, P. J., Belikov, O. M., Yoshikawa, E., & Perkins, M. (2018). Enablers and Inhibitors to Integrating Computing and Engineering Lessons in Elementary Education. *Journal of Technology and Teacher Education*, 26(3), 437-469. Retrieved from <https://www.learntechlib.org/primary/p/181979/>
- McDonald, J. K., Rich, P. J., & Gubler, N. B. (2018). The Perceived Value of Informal, Peer Critique in the Instructional Design Studio. *TechTrends*. doi:10.1007/s11528-018-0302-9
- Fryar, B., Wilcox, B., Hilton, J., & Rich, P. J. (2018). Describing Spiritual Growth in an Online Religious Education Course. *Journal of Research on Christian Education*, 27(1), 56-75. doi:10.1080/10656219.2018.1446851
- Rich, P. J., Jones, B. L., Belikov, O., Yoshikawa, E., & Perkins, M. (2017). The effect of year-long training on elementary teachers' self-efficacy for and beliefs about teaching computing and engineering. *International Journal of Computer Science Education in Schools*. 1(1), DOI: 10.21581/ijcsesv1i1.6
- McMurry, B. L., Rich, P. J., Hartshorn, K. J., Anderson, N. J., & Williams D. D. (2016). Criteria language teachers use when selecting CALL technologies. *Journal of Language Teaching and Learning*. 16(1), 49-65.
- McMurry, B. L., West, R. E., Rich, P. J., Williams, D. D., Anderson, N. J., & Hartshorn, K. J. (2016). Teaching English as a Second or Foreign Language, An Evaluation Framework for CALL. *TESL-EJ*, 20(2).
- Thomas, R., West, R. E., & Rich, P. J. (2016). Benefits, Challenges, and Perceptions of the Multiple Article Dissertation Format in Instructional Technology. *Australasian Journal of Educational Technology*, 32(2). DOI: 10.1472/ajet.2573
- Rich, P. J., Bly, N., & Leatham, K. (2014). Investigating the influence of computer programming on perception and application of mathematical skills. *Journal of Computers in Mathematics and Science Teaching*, 33(1), 103-128.
- Rich, P. J., Leatham, K. R., & Wright, G. A. (2013). Convergent cognition. *Instructional Science*, 41(2), 431-453. doi:10.1007/s11251-012-9240-7?LI=true#page-1
- Rich, P. J., West, R. W. (2012). New technologies, new approaches to evaluating academic productivity. *Educational Technology*, 52(6), 10-13.
- West, R. E., & Rich, P. J. (2012). Rigor, impact and prestige: A proposed framework for evaluating scholarly publications. *Innovative Higher Education*. doi:10.1007/s10755-012-9214-3
- Wright, G., Rich, P. J., & Leatham, K. (2012). How programming fits with technology education curriculum. *Technology and Engineering Teacher*, (April) 3-9.

- Tripp, T., Rich, P. J. (2012). The influence of video analysis on the process of change. *Teaching and Teacher Education*, 28 (5), pp. 728-739. DOI 10.1016/j.tate.2012.01.011
- Rich, P. J. (2012) Inside the black box: Revealing the process in applying a grounded theory analysis, 17(4). *The Qualitative Report*.
- Tripp, T., & Rich, P. J. (2011). Using video to analyze one's own teaching. *The British Journal of Educational Technology*. DOI: 10.1111/j.1467-8535.2011.01234.x
- Markle, T. D., West, R. E., & Rich, P. J. (2011). Beyond transcription: Technology, change, and refinement of method. *Forum: Qualitative Studies*, 12(3)
- Rich, P. J., & Tripp, T. (2011). Ten essential questions educators should ask when using video annotation tools. *TechTrends*, 55(6), 16-24.
- Hilton, J. L., Graham, C. R., Rich, P., & Wiley, D. (2010). Using online technologies to extend a classroom to learners at a distance. *Distance Education*. 33(1).
- Rich, P. J., & Calandra, B., (2010). Video, video, everywhere. Issues and evidence of video analysis in teacher education. *Educational Technology*, 50(1), 3.
- Fadde, P., & Rich, P. J. (2010). Guerrilla video. A new protocol for producing classroom video. *Educational Technology*. 50(1), 4-7.
- West, R. E., Rich, P. J., Shepherd, C.E., Recesso, A., & Hannafin, M. J. (2009). Supporting Induction Teachers' Development Using Performance-Based Video Evidence. *Journal of Technology and Teacher Education*. 17(3).
- Rich, P. J., & Hannafin M. (2009). Making instructional decisions visible: The use of video evidence to assess preservice teachers' practice. *Journal of Computing in Higher Education*, 21(2), pp. 128-145.
- Rich, P. J., & Hannafin, M. (2009). Video Annotation Tools: Technologies for Scaffolding and Structuring Teacher Reflection. *Journal of Teacher Education*, 60(1), 52-67.
- Glazer, E.M., Hannafin, M.J., Polly, A.B., & Rich, P. (2009). Factors and interactions influencing technology integration during situated professional development in an elementary school. *Computers in the Schools*, 26(1), 21-39.
- Rich, P., & Hannafin, M. (2008). Capturing and assessing evidence of student teacher inquiry: A case study. *Teaching and Teacher Education*, 24(6), pp. 1426-1440.
- Rich, P., & Hannafin, M. (2008). Decisions & reasons: Examining preservice teacher decision-making through video self analysis. *Journal of Computing in Higher Education*. 20(1), 62-94.
- Barbour, M., & Rich, P. (2007). Social constructivist e-learning: A case study. *International Electronic Journal for Leadership in Learning*, 11(2)
- Rich, P., Reeves, T. (2006). John Dewey, a significant contributor to the field of educational technology. *Educational Technology*. 46(4).

Books & Book Chapters

Rich, P. J., & Browning, S. F. (2020). *Using Dr. Scratch as a formative feedback tool to assess computational thinking*. In S. Keengwe & P. Wachira (Eds.). *Handbook of Research on Integrating Computational Thinking*. IGI Global.

Fry Balci, L., & Rich, P. J. (2020). Teaching the Framework Using an Online Tutorial. In H. Julien, M. Gross, & D. Latham (Eds.), *The Information Literacy Framework: Case-Studies of Successful Implementation*, pp. 97-110. Lanham, MD: Rowman & Littlefield.

Rich, P. J., & Hodges, C. B. (Eds) (2017). *Emerging Research, Practice and Policy on Computational Thinking*. Springer.

Rich, P. J., & Langton, M. (2016). Computational thinking: toward a unifying definition. In J. M. Spector, D. Ifenthaler, D. G. Sampson, & P. Isaías (Eds.). *Competencies in Teaching, Learning, and Educational Leadership in the Digital Age*, pp. 229-242. Springer.

Rich, P. J., West, R. E., & Warr, M. (2015). Innovating How We Teach Collaborative Design Through Studio-based Pedagogy. In M. Orey (Ed.). *Yearbook of Educational Media and Technology Yearbook*, vol. 39, p. 147-163. Springer.

Rich, P. J. (2015). Games in higher education. In J. M. Spector (Ed.) *The SAGE encyclopedia of Educational Technology*, p. 312-314. SAGE, Los Angeles, USA.

Calandra, B., & Rich, P. J. (eds.) (2014). *Digital Video for Teacher Education. Research and Practice*. Routledge: New York, NY.

Rich, P.J. (2014). Examining the role of others in video self-analysis. In B. Calandra & P. J. Rich (Eds.) *Digital video for teacher education. Research and Practice*. Routledge: New York, NY.

Mardis, M. A., Hoffman, E. S., & Rich, P. J. (2014). Trends and issues in qualitative research methods. In M. J. Bishop, M. J. Spector, & M. D. Merrill (Eds.). *The Handbook of Research on Educational Communications and Technology (4th ed)*, 173-193.

Recesso, A., Hannafin, M. J., Wang, F., Deaton, B., Rich, P. J., & Shepherd, C. (2009). Direct Evidence and the Continuous Evolution of Teacher Practice. In P. Adamy & N. Milman (Eds.), 23-47. *Evaluating Electronic Portfolios in Teacher Education*. Greenwich, CT: Information Age Publishing, Inc.

Book Reviews

Rich, P. J., & Jones, B. L. (2015). [Review of the book *Connected Code: Why Children Need to Learn Programming* by Y. Kafai & Q. Burke]. *Teachers College Record*, Sept., 2015.

Conference Presentations and Proceedings

Peters-Burton, E. E., Burton, S. R., Laclede, L., Rich, P., Cleary, T., & Kitsantas, A. (2020, January). *High school teacher task analysis of lesson plans to identify opportunities for computational thinking in data analysis*. Paper to be presented at Far West Association for Science Teacher Education Conference, Honolulu, HI.

Rich, P. J., & Egan, G. J. (July, 2019). A framework for decomposition in computational thinking. *Proceedings of the 2019 ACM Conference on Innovation and Technology in Computer Science Education*. 416-421.
<https://doi.org/10.1145/3304221.3319793>

†Rich, P. J., Egan, G. J., & Ellsworth, J. (2019). *Improving computational thinking skills through coding education in grades 4-6*. Presentation at the annual meeting for the Association for Educational Communications and Technology. Las Vegas, NV.

Rich, P. J., & Hu, H. (2019). *Surveying the Landscape: Statewide Data on K-12 CS Education Implementation*. Presentation at the Annual meeting for Research on Equity and Sustained Participation in Engineering, Computing, & Technology (RESPECT). Minneapolis, MN.

Rich, P. J. (2018). *Reimagining the Future: Emerging 'Cool' Fields – Episode II: Computational Thinking*. Presentation given at the annual meeting for the Association for Educational Communications and Technology. Kansas City, MO.

Rich, P. J., Ontiveros, P., & García, D. (31 January 2018). *La importancia de la enseñanza de tecnología en aula*. Webchat hosted by the U.S. Embassy in Bolivia. La Paz, Bolivia.

Rich, P. J. (30 January 2018). *Conversatorio: La tecnología en aula*. Invited panel discussion at La Universidad San Francisco de Asís. Hosted by the U.S. Embassy in Bolivia. La Paz, Bolivia.

Rich, P. J. (30 January 2018). *Cómo usar la tecnología en aula*. Invited presentation given at La Universidad Mayor, San Andrés. La Paz, Bolivia.

Rich, P. J. (30 Jan, 2018). *¿Cómo debe ser la educación del siglo 21?* Invited presentation given at Universidad Privada San Francisco de Asis. La Paz, Bolivia.

Rich, P. J. (29 Jan, 2018). *Recursos pedagógicos tecnológicos de éxito en aula universitaria*. Invited presentation given at La Universidad Católica, Boliviana “San Pablo.” La Paz, Bolivia.

Rich, P. J. (26 Jan, 2018). *¿Cómo debe ser la educación del siglo 21?* Invited presentation given at Unifraz. El Alto, Bolivia.

‡Rich, P. J. (2017). *Learning in the 21st Century: The 6 Cs*. Presentation given at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

† Awarded outstanding sponsored accepted proposal for the Research & Theory Division

‡ Presidential session

- Rich, P. J. (2017). *Cultivating 21st Century Learning: The 6 Cs*. Invited presentation given at the Sichuan University of Science and Engineering. Zigong, Sichuan, China.
- Rich, P. J., Yoshikawa, E., Belikov, O., Perkins, M., Browning, S., & Shoop, T. (2016). Coding in K-8. Presentation given at the annual meeting for the Association for Educational Communications and Technology. Las Vegas, NV.
- Rich, P. J., Jones, B., Yoshikawa, E., Belikov, O., & Perkins, M. (2016) Supporting Elementary Teachers' integration of computing and engineering into their teaching. Presentation given at the annual meeting for the Association for Educational Communications and Technology. Las Vegas, NV.
- Sugar, W., Luterbach, K., & Rich, P. J., (2016). An analysis of multimedia production courses in instructional design and technology graduate programs. Presentation given at the annual meeting for the Association for Educational Communications and Technology. Las Vegas, NV.
- Rich, P. J., Jones, B. L., & Yoshikawa, E. (2015). Teaching Elementary Teachers to Code and Engineer. Paper presented at the annual meeting of the Association for Educational Communications and Technology. Indianapolis, IN.
- *Chapman, J., & Rich, P. J. (2015). *The Design, Development, and Evaluation of a Gamification Platform for Business Education*. Paper presented at the annual meeting for the Academy of Management. Vancouver, B.C., Canada.
- Rich, P. J., & Chapman, J. (2014). *The design, development, and implementation of a gamified approach to a college-level business course*. Presentation at the annual meeting of the Association for Educational Communications and Technology, Jacksonville, FL.
- Rich, P. J., Langton, M., & South, J. (2014). *Defining computational thinking*. Presentation at the annual meeting of the Association for Educational Communications and Technology, Jacksonville, FL.
- Wright, G., Rich, P., & Lee, R. (2013). *The influence of teaching programming on learning mathematics*. Presentation given at the annual meeting of the Society for Information Technology and Teacher Education. New Orleans, LA.
- Wright, G., Rich, P., & Lee, R. (2013). *Foundational Technological Concepts: A study of the transfer of foundational technological concepts between STEM (science, technology, engineering & mathematics)*. Presentation given at the annual meeting of the Society for Information Technology and Teacher Education. New Orleans, LA.
- Small, T., & Rich, P. J. (2012). Streams of influence: A citation analysis of influence in instructional design and technology. Presentation given at the annual meeting of the *Association for Educational Communications and Technology*. Louisville, KY.
- Lee, R. L., & Rich, P. J. (2012). Bootstrap: The effect of learning a functional programming language on students' understanding of algebraic functions. Presentation to be presented at the annual meeting of the *Association for Educational Communications and Technology*. Louisville, KY.

* Awarded Best Paper

- Rich, P. J. (2012). Design competitions and award winning instructional products. *Presentation to be given at the annual meeting for Professors of Instructional Design and Technology*. Estes, Park, CO.
- Hoffman, E., Watson, G., Mardis, M., & Rich, P. (2011, November). Teaching qualitative research in educational technology: A panel discussion. *Presentation given at the annual meeting of the Association for Educational Communications and Technology*. Jacksonville, FL.
- Rich, P., & Bly, N. (2011, November). The perceived effect of computer programming on mathematics. *Paper presented at the annual meeting of the Association for Educational Communications and Technology*. Jacksonville, FL.
- Wright, G., Lee, R., Rich, P. & Leatham, K. (2011). An Analysis of the Influence on Students' Mathematics Skills Participating in the Bootstrap Programming Course. In *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2011* (pp. 986-991). Chesapeake, VA: AACE.
- Rich, P. (2011). Improving teacher questioning strategies through collaborative video self-analysis. In *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2011* (pp. 2482-2489). Chesapeake, VA: AACE.
- Ertmer, P. A., Frick, T. W., Gibbons, A. S., Hannafin, M. J., Hooper, S., Reiser, R. A. & Rich, P. J., & Shen, Y. (2011 November). Preparing students in instructional design and technology to become skilled researchers: Multiple approaches. *Panel presented at the annual meeting of the Association for Educational Communications and Technology*. Jacksonville, FL.
- Rich, P. (2011, June). Conceptual considerations for conducting video self-analysis. Invited Plenary talk. *Third annual conference for the Representation of Mathematics Teaching*. University of Michigan.
- Rich, P. (2010, October). Collaborative self-assessment. *Presentation given at the annual meeting of the Association of Educational Communications and Technology*. Anaheim, CA.
- Rich, P. (2010, October). Video annotation tools: Choosing the right tool for the right job. *Presentation given at the annual meeting of the Association of Educational Communications and Technology*. Anaheim, CA.
- Johnson, M., Tripp, T., Rich, P., & Egbert, D. (2010, June). Seeing is believing: Using video annotation tools to teach and learn. *Presentation given at the annual meeting of Teaching with Technology Idea Exchange*. Salt Lake City, Utah.
- Wright, G. & Rich, P. (2010). How Can Programming Improve Mathematical Self-Efficacy: A Case Study of Teaching 7th and 8th Grade Students Computer Programming. In *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2010* (pp. 2965-2969). Chesapeake, VA: AACE.
- Wright, G. & Rich, P. (2010). Programming Literacy Needs to be a Core Content Standard: A Case Study of Teaching 7th and 8th Grade Students Computer Programming. In J. Sanchez & K. Zhang (Eds.), *Proceedings of World*

Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2010 (pp. 386-390). Chesapeake, VA: AACE.

- Wright, G., Rich, P. & Leatham, K. (2010). Lateral Transfer: Using Programming to Improve Student Mathematical Comprehension and Ability. In D. Gibson & B. Dodge (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2010* (pp. 3529-3532). Chesapeake, VA: AACE.
- Rich, P., & Tripp, T. (2010, May). The process of change: Video feedback in varied contexts. *Presentation given at the annual meeting of the American Educational Research Association*. Denver, Co.
- Rich, P. & Tripp, T. (2010, March). Choosing the Right Video Annotation Tool for the Job: A Conceptual Framework. In C. Crawford et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2010* (pp. 1171-1178). Chesapeake, VA: AACE.
- Wright, G., Rich, P. & Leatham, K. (2010, March). Lateral Transfer: Using Programming to Improve Student Mathematical Comprehension and Ability. In C. Crawford et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2010* (pp. 3529-3532). Chesapeake, VA: AACE.
- Hannafin, M. J., Rich, P. J., West, R.W., & Polly, D. (2010, March). Design-based research in practice: The video analysis tool. Paper presented at Educational Design Research: Local Change and Global Impact. Athens, GA.
- Wright, G., Rich, P. & Leatham, K. (2009). Teaching Programming to Junior High and High School Students to Improve Mathematical Ability and Self-Efficacy. In T. Bastiaens et al. (Eds.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2009* (pp. 782-788). Chesapeake, VA: AACE.
- Wright, G., Rich, P. & Leatham, K. (2009). Convergent Cognition: Improving Mathematical Self-Efficacy and Understanding by Teaching Programming. In I. Gibson et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2009* (pp. 3625-3628). Chesapeake, VA: AACE.
- Rich, P., Wright, G., Bly, N., & Leatham, K. (2009). Convergent Cognition. *Poster presented at the annual meeting of the Association of Educational Communications and Technology*. Louisville, KY.
- Wright, G., Rich, P. (June 2009). Convergent Cognition: Improving STEM Student Mathematical Self-Efficacy and Understanding by Teaching Programming. *Paper presented at the annual ACEE Ed-Media conference*, Honolulu, Hawaii.
- Rich, P., & Tripp, T. (April 2009). Video analysis tools. A conceptual framework. *Paper presented at the annual meeting of the American Educational Research Association*. San Diego, CA.
- Wright, G., Rich, P. (2009). Complementary Cognition: Improving STEM Student Mathematical Self-Efficacy and Understanding by Teaching Programming. *Paper presented at the annual E-Society IADIS conference*, Barcelona, Spain.

- Wright, G., Rich, P., and Anderson, R. (March, 2009). Using Flash Programming to Teach STEM. *Paper presented at the annual meeting of the International Technology Education Association (ITEA)*.
- Wright, G., Rich, P. (March 2009). Convergent Cognition: Improving Mathematical Self-Efficacy and Understanding by Teaching Programming. *Paper presented at the annual Society of Information Technology in Education*, Charleston, SC.
- Rich, P., & Tripp, T. (2008). Systematically Improving Instruction through self, peer, and video analysis. In G. Richards (Ed.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2008* (pp. 3137-3143). Chesapeake, VA: AACE.
- Rich, P. (2008, November). Video, video everywhere: Working with video annotation tools in teacher education. *Paper presented at the annual meeting of the Association of Educational Communications and Technology*. Orlando, FL.
- Rich, P. & Bly, N. (2008, November). Complementary Learning: A new learning paradigm for the 21st century. *Poster presented at the annual meeting of the Association of Educational Communications and Technology*. Orlando, FL.
- Rich, P., Recesso, A., Allexaht-Snyder, M., & Hannafin, M. (2007, April). The Use of Video- Based Evidence to Analyze, Act on, and Adapt Preservice Teacher Practice. Paper presented at the annual American Educational Research Association in Chicago, Illinois.
- Shepherd, C., Rich, P., West, R.E., Hannafin, M., & Recesso, A. (2007). Facilitating Mentoring Experiences With Video-Based Portfolios. Paper to be presented at the annual American Educational Research Association in Chicago, Illinois.
- West, R.E., Recesso, A., Hannafin, M., Rich, P., & Shepherd, C. (2007). Evidential Boundaries and the Assessment of Teacher Practices. Paper to be presented at the annual American Educational Research Association in Chicago, Illinois.
- Rich, P., West, R., Recesso, A., Hannafin, M. (2007). The use of video evidence and interpretive lenses to improve instructional decisions among preservice teachers. *Paper presented at the annual meeting for the American Association of Colleges for Teacher Education*. New York, NY.
- Rich, P. & Recesso, A. (2006). *Improving instructional decisions through Evidence-Based Decision Support*. Presentation given at the Association for Educational Communications and Technology International Conference: Dallas, TX.
- Anderson, K., Rich, P. (2006). Presentation given during the Publications Committee Open Meeting at the 2006 Annual Meeting of the American Educational Researcher Association.
- Rich, P. (2005, October). *Following up and following through: what happens after professional development?* Poster presented at the annual College of Education Graduate Student Research Conference. University of Georgia. Athens, Georgia.

- Rich, P., Recesso, A., Shepherd, C., Deaton, B., Wang, F., & Hannafin, M. J. (2005, April). *Improving teacher educator and preservice teacher practices through technology-enhanced evidence-based inquiry*. Paper presented at the American Educational Research Association, Montreal.
- Rich, P., Recesso, A. (2004). Evidence-based Technology Enhanced Alternative Curriculum in Higher Education. *Brief paper presented at the World Conference on E-Learning in Corp., Govt., Health., & Higher Ed.* Issue. 1. pp. 2114-2119. Washington, D.C.
- Barbour, M., & Rich, P. (2004). Social Constructivist E-Learning: A Case Study. *Brief paper presented at the USA World Conference on E-Learning in Corp., Govt., Health., & Higher Ed.*, Issue. 1, pp. 1754-1759. Washington, D.C.
- Shepherd, C. E., Rich, P., Wang, F., Deaton, B., Recesso, A., & Hannafin, M. (2005, April). Technology integration through teacher educator and preservice teacher modeling of evidence-based practices. *Paper presented at the American Educational Research Association annual meeting*, Montreal, Canada.
- Wang, F., Hannafin, M. J., Deaton, B., Shepherd, C., Rich, P., & Recesso, A. (2005). Design and research on learning support tools in the evidence-based inquiry system. *Paper presented at the Annual Meeting of the American Educational Research Association*, Montreal, Canada.
- Recesso, A., Hannafin, M., Wang, Deaton, B., Shepherd, C., & Rich, P. (2005). Evidence Based Inquiry as a Methodology for Continuous Improvement of Practices. Paper presented at the American Educational Research Association Annual Meeting, Montreal.
- Kim, M., Rich, P. & Hannafin, M. (2004). *The challenges of teaching with computer tools: Teacher as facilitators of student learning*. Full paper presented at SITE conference in Atlanta, GA.
- Shepherd, C., Polly, D., Rich, P. & Thomas, G. (2004). *Creating Electronic Portfolios that Facilitate Reflection and Evaluation*. Brief paper presented at the SITE conference in Atlanta, GA.
- Singleton, E., Bleich, L., Orrill, P., Rich, P. & Shepherd, C. (2004). *Technology Integration in Mathematics*. Poster/Demo given at SITE conference in Atlanta, GA.

Grants/Reports

- Rich, P. J., Hu, H., Christensen, J., & Ellsworth, J. (2019). *The Landscape of Computing Education in Utah*. CS4Utah.org.

- Peters-Burton, E., Cleary, T., Kitsantas, A., Rich, P. J. (2018). Project REVEAL-HS: Fostering Student Computational Thinking in Data Analysis Through Self-Regulated Learning Prompts and Analytics. National Science Foundation. STEM+C Grant. Award: \$4,612,226 (60 months) BYU Portion (\$393,559).
- Rich, P. J. (2014). Gaming math: Programming computer games that demonstrate the mathematics in the Utah Common Core. Brigham Young University *Graduate Mentoring Grant*. Award \$5,000.
- West, R. E., Rich, P. J., Cantrell, P., & Selfridge, R. (unfunded). EverDay. Developing everyday engineering skills through everyday engineering. *Pathway grant submitted to NSF Informal Science Education program*. Proposed Budget: \$248,202 over 24 months.
- Rich, P., Leatham, K., Wright, G., & McCarthy, J. (2011). Bootstrap: Improving mathematical understanding through programmatic animation design. Brigham Young University Mentoring Environment Grant. Award: \$20,000.
- Rich, P. J., & Ashton, S. (2010). Foundational Technological Concepts. Brigham Young University Graduate mentoring grant. Award: \$5,000.
- Wright, G. & Rich, P. (2009). Complementary Learning. Brigham Young University Mentoring Environment Grant. Award: \$20,000.
- Rich, P. (2009). The video analysis consortium: Improving learning through multiple perspectives. McKay School of Education Research Grant. Award: \$10,000.
- Rich, P., & Wright, G. (2009). The video analysis consortium: Improving learning through multiple perspectives. Brigham Young University Mentoring Environment Grant. Award: \$20,000.
- Rich, P. (2008). Systematically improving instruction through peer and self-analysis. Mentoring Undergraduate Research award. Award total: \$3,000.
- Hannafin, M., Orrill, C., & Rich, P. (2007). Fostering Research. National Science Foundation (Award no. IIS-0738462). Contribution (50%).
- Recesso, A., Hannafin, M., Rich, P., Deaton, B., Shepherd, C., & Wang, F. (2004). Evidence-based Technology-Enhanced Curriculum in Higher Education. Annual Report, year 1. Preparing Teachers To use Technology. Contribution (60%).
- Orrill, C., Mewborn, D., Beckman, S. (2004-2005). Madison County Mathematics Improvement with Technology. Funding Agency: Georgia's Improving Teacher Quality Program. Funds Received: \$32,697 contribution (5-10%)
- Orrill, Chandra; Mewborn, Denise, Beckman-Kazez, Sybilla. (2004-2005) Technology Integration in Mathematics – Richmond County. Funding Agency: Georgia's

Improving Teacher Quality Program. Funds Received: \$52,623. Contribution (5-10%)

Workshops

- Rich, P. J. (2018). *Teaching Kids to Code (and Teachers too!)*. Workshop given at the annual meeting of the Association for Educational Communications and Technology. Kansas City, MO.
- Rich, P. J. (2018). Midlothian primary school Sphero workshops (6th grade and 3rd grade). Edinburgh, Scotland.
- Rich, P. J. (2018, Jan). *El proceso del diseño de la ingeniería*. Workshop given at Pipiripi. La Paz, Bolivia.
- Rich, P. J. (2018, Jan). *Aprender a programar por medio de Scratch y los micro:bit*. Five workshops given at CoWork FIRST LEGO for Bolivian youth and teachers.
- Rich, P. J. (2018, Jan). *Actividades desenchufadas para aprender la programación*. Workshop given at La Universidad Mayor, San Andrés. La Paz, Bolivia.
- Rich, P. J. (2018, Jan). *Actividades desenchufadas para aprender la programación*. Workshop given at Metro Para Juvenil. El Alto, Bolivia.
- Rich, P. J. (2017, November). *Elementary Coding: Preparing Preservice Teachers to Teach Coding*. Workshop given at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.
- Rich, P. J. (2017, April). *The Innovation Design Process*. Invited workshop given at the Sichuan University of Science and Engineering. Zigong, China.
- Rich, P. J. (2016, October). Creating interactive content with Adobe Animate (Flash). Workshop given at the annual meeting for the Association for Educational Communications and Technology. Las Vegas, NV.
- Rich, P. J. (2015, August). Creating Interactive Content with Adobe Edge Animate. Workshop given at the annual meeting of the Association of Educational Communications and Technology.
- Rich, P. J., & Abraham, H. (2011, August). Google documents. Making the most of online tools in the classroom. Workshop given at annual David O. McKay School of Education conference.
- Rich, P. J. (2011, March). Video annotation tools: Choosing the right tool for the job. Workshop given at monthly meeting of the faculty of the David O. McKay School of Education.
- Rich, P. J. (2007, 2008, 2009, 2011, 2012). Controlling website layout and design with cascading stylesheets. Workshop given at the annual meeting of the Association of Educational Communications and Technology.

Service

Reviewing

Journal of Science Education and Technology
Educational Technology Research & Development
Journal of Teacher Education
American Educational Research Journal
Journal of Computing in Higher Education
Journal of Technology and Teacher Education
Journal of Distance Education
American Journal of Evaluation
Association for Educational Communications and Technology
American Educational Research Association

Professional

Member, CS4Utah Steering Committee (2019-Present)
Editorial board member, Educational Technology Research & Development (2016-2019)
External reviewer for rank and status dossiers (avg. 1-2x/year)
Member, Committee for the selection of AECT presidential candidates (2009-2011)
Vice-president for Communications. (2007-2010). AECT Teacher Education Division.
Student Editorial Board, Educational Researcher: Research News and Comments.
(August, 2005 - 2007). Editors: Paul Schutz (schutz@uga.edu) and Sonja Lanehart (lanehart@uga.edu)

University

Chair, IP&T Student scholarship committee (2019-present)
Member, MSE Research & Scholarship Committee (2018-present)
Chair, IP&T online information committee (2016-2019)
Member, David O. McKay School of Education Rank and Status committee (2013-present)
Co-chair, Committee for the reorganization of CPAS observation instrument (2011-2014)
Co-chair, David O. McKay School of Education Multicultural Education committee (2009-2012)
Member, David O. McKay School of Education Educational Preparation Program (2009-2014)
Member, IP&T strategic planning committee (2012-present)
Member, IP&T Learning outcomes committee (2011-present)
Multicultural Education Committee Co-Chair, David O. McKay School of Education
IP&T Student Organization Faculty Liaison (2007-present)
Grant and Scholarship allocation committee, department of Instructional Psychology & Technology (2008-2015)