

CURRICULUM VITAE
BRENDA BANNAN

Associate Professor
College of Education and Human Development
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EDUCATION

THE PENNSYLVANIA STATE UNIVERSITY, UNIVERSITY PARK, PA

Ph.D. August 1995 Instructional Systems

Dissertation: The Effects of Varied Visual Organizational Strategies within Computer-Based Instruction on Factual, Conceptual and Problem Solving Learning.

BLOOMSBURG UNIVERSITY, BLOOMSBURG, PA

M.S. May 1991 Instructional Technology

MILLERSVILLE UNIVERSITY, MILLERSVILLE, PA

B.S. May 1986 Communications

ACADEMIC EXPERIENCE

GEORGE MASON UNIVERSITY, FAIRFAX, VA

College of Education and Human Development (CEHD)

May 2003 – present Associate Professor, Division of Learning Technologies

August 2005 – May 2006 Visiting Scholar, Stanford University Center for Innovations in Learning

August 1996 – May 2003 Assistant Professor, Division of Learning Technologies

Primary affiliation – Instructional Design and Technology (IDT) Program

Co-Academic Program Coordinator (Co-APC), IDT Program 2016 - 2017

Secondary affiliations – Mathematics Education Leadership program; Mathematics Education Center; Helen A. Kellar Institute for Human disAbilities

George Mason University Center for Advancing Human-Machine Partnerships (CAHMP)

August 2019 – present Co-Director, CAHMP

George Mason University Institute for Digital InnovAtion (IDIA), Institute for Biohealth Innovation (IBI) and Center for Resilient and Sustainable Communities(C-RASC)

August 2020 – present Affiliate Faculty, IDIA, IBI, C-RASC

Research interests – Internet of Things (IoT)/ Cyber-physical Systems; Mobile Behavioral Analytics for Learning; Multiteam Systems; Digitally-Mediated Team Learning; Wearable Technologies for Learning; Live Simulation Training; Educational Design Research; Mobile and Augmented Reality learning environments; Human-Centered Design /User Experience Design, Instructional Design.

UNIVERSITY OF SOUTH FLORIDA, FORT MYERS, FL

College of Education

August 1995 – May 1996 Assistant Professor

Primary affiliation - Department of Instructional Technology

THE PENNSYLVANIA STATE UNIVERSITY, UNIVERSITY PARK, PA

Penn State Nutrition Center

August 1992 – May 1995 Graduate Research Assistant

COURSES TAUGHT

GEORGE MASON UNIVERSITY, FAIRFAX, VA (graduate level)

EDIT 704 – Instructional Technology Foundations and Learning Theory (*also developed*)
EDIT 705 – Instructional Design (*also developed*)
EDIT 730 – Analysis & Design of Multimedia/Hypermedia Learning Environments (*also developed*)
EDIT 732 – Analysis & Design of Technology-Based Learning Environments (*also developed*)
EDIT 752 – Design & Production of Multimedia/Hypermedia Learning Environments (*also developed*)
EDIT 752 – Design & Production of Technology-Based Learning Environments (*also developed*)
EDIT 790 – Practicum Project/Internships
EDIT 791 – Project Development Practicum (*also developed*)
EDIT 792 – Advanced Project Development Practicum (*also developed*)
EDIT 801 – Nature and Process of Design (*also developed*)
EDIT 803 – Design-Based Research (*also developed*)
EDIT 895 – Emerging Issues in Instructional Technology
EDIT 891 – Design Research Independent Study (*also developed*)
EDUC 994 – Advanced Doctoral Internship

CORPORATE EXPERIENCE

FRONTIER MEDIA GROUP, MALVERN, PA

March 1992 - December 1992 Project Manager/Multimedia Developer

Conducted needs assessment, design, development and evaluation of computer-based medical training interventions.

MERCK & CO, INC, ISELIN, NJ

August 1991 - June 1992 Instructional Designer/Intern

Designed and developed interactive computer-based pharmaceutical training

PUBLICATIONS AND SCHOLARLY PRODUCTS

BOOKS

Dabbagh, N., & Bannan-Ritland, B. (2005). *Online learning: concepts, strategies, and application*. Pearson/Merrill/Prentice Hall.

<https://play.google.com/store/books/details?id=cNBKAAAAYAAJ>

REFEREED JOURNAL ARTICLES

(* denotes student)

- Bannan, B., Dabbagh, N., & Walcutt, J.J.** (2020). Instructional strategies for the future. *Journal of Military Learning*, 4(1), 68-80. <https://www.armyupress.army.mil/Journals/Journal-of-Military-Learning/Journal-of-Military-Learning-Archives/April-2020/Walcutt-Instruct-Strategy/>. (Reprinted from “Instructional strategies for the future,” 2019, In J.J. Walcutt and S. Schatz (Eds.), *Modernizing learning: Building the future learning ecosystem* (pp. 223-242). Washington, DC: Government Publishing Office. License: Creative Commons Attribution CC BY 4.0 IGO).
- *Hatley, L., *Al-Freih, M., & **Bannan, B.** (2018). “I’m just guiding you”: An exploration of software design mentorship within a software engineering firm. *Journal of Software Engineering and Applications*, 11(6), 299–317. <https://doi.org/10.4236/jsea.2018.116019>
- *Ortel, J., Thompson, J., **Bannan, B.**, Shepard, M., Henjum, M. & Derrick, M. (2017). Factors impacting physical therapist’s adoption of clinical prediction rules and manipulation after continuing education training. *Orthopedic Practice*, 29, 1-17.
- Bannan, B., Cook, J., & Pachler, N.** (2016). Reconceptualizing design research in the age of mobile learning. *Interactive Learning Environments*, 24(5), 938–953. <https://doi.org/10.1080/10494820.2015.1018911>
- Steffens, K., **Bannan, B.**, Dalgarno, B., Bartolome, A. R., Esteve-González, V., & Cela-Ranilla, J. M. (2015). Recent developments in technology-enhanced learning: A critical assessment. *International Journal of Educational Technology in Higher Education*, 12(2), 73–86. <https://doi.org/10.7238/rusc.v12i2.2453>
- *Martínez-Álvarez, P., & **Bannan, B.** (2014). An exploration of hybrid spaces for place-based geomorphology with latino bilingual children. *Journal of Geoscience Education*, 62(1), 104–117. <https://doi.org/10.5408/12-407.1>
- *Martínez, P., **Bannan, B.**, & Kitsantas, A. (2012). Bilingual students’ Ideas and Conceptual Change About Slow Geomorphological Changes Caused by Water. In *Journal of Geoscience Education*, 60(1), 54–66. <https://doi.org/10.5408/09-145.1>
- *Martínez-Álvarez, P., **Bannan, B.**, & *Peters-Burton, E. E. (2012). Effect of strategy instruction on fourth-grade dual language learners’ ability to monitor their comprehension of scientific texts. In *Bilingual Research Journal* 35 (3), 331–349. <https://doi.org/10.1080/15235882.2012.734005>
- *Chung, Y., Behrmann, M., **Bannan, B.**, & Thorp, E. (2012). Perspectives of high tech augmentative and alternative communication users with cerebral palsy at the post-secondary level. *Perspectives on Augmentative and Alternative Communication*, 21(2), 43-55. <https://doi.org/10.1044/aac21.2.43>
- Bannan, B., *Peters, E., & *Martinez, P.** (2010). Mobile, inquiry-based learning and geological observation. In *International Journal of Mobile and Blended Learning*, 2(3), 13–29. <https://doi.org/10.4018/jmbl.2010070102>
- *Jeffs, T., Behrmann, M., & **Bannan-Ritland, B.** (2005). Assistive technology and literacy learning: reflections of parents and children. *Journal of Special Education Technology*, 21(1), 37–44. <https://doi.org/10.1177/016264340602100104>

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- Bannan-Ritland, B.** (2003). The role of design in research: The integrative learning design framework. *Educational Researcher*, 32(1), 21–24. <https://doi.org/10.3102/0013189X032001021>
- Bannan-Ritland, B. & Grabowski, B.** (2002). The effects of generative visual manipulation strategies within computer-based instruction. *Journal of Visual Literacy*, 22(2) 143-160. <https://doi.org/10.1080/23796529.2002.11674586>
- Bannan-Ritland, B.** (2002). Computer-mediated communication (CMC), elearning and interactivity: A review of the research. *Quarterly Review of Distance Education*, 3(2)161-179. <https://www.learntechlib.org/p/95271/>
- Bannan-Ritland, B.** (2002) Literacy Access Online: The development of an online support environment for literacy facilitators working with children with disabilities. *Tech Trends* 45(2), 17-22. Retrieved August 24, 2020 from <https://link.springer.com/content/pdf/10.1007/BF02784837.pdf>
- Bannan-Ritland, B.** (2001). An action learning framework for teaching instructional design. *Performance Improvement Quarterly*, 14(2), 37-51. <https://doi.org/10.1111/j.1937-8327.2001.tb00208.x>
- Bannan-Ritland, B., Milheim, W.D. & Harvey, D.** (1998) A general framework for Web-based instruction. *Educational Media International*, 35(2), 77-81. <https://doi.org/10.1080/0952398980350204>
- Jonassen, D. H., Davidson, M.E., Collins, M., Campbell, J., & [Haag] **Bannan, B.**, (1995). Constructivism and computer-mediated communication in distance education. *The American Journal of Distance Education*, 9(2), 7-26. <https://doi.org/10.1080/08923649509526885>
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INVITED BOOK CHAPTERS

(+denotes refereed *denotes student)

- +**Bannan, B.**, *Dubrow, S., Dobbins, C., Zaccaro, S., Purohit, H., & Rana, M. (2019). Toward wearable devices for multiteam systems learning. In I. Buchem, R. Klamma & F. Wild (Eds.), *Perspectives on Wearable Enhanced Learning (WELL): Current Trends, Research and Practice* (pp.79-95). Springer International Publishing. https://doi.org/10.1007/978-3-319-64301-4_4
- +**Bannan, B. & Burbridge, J.** (2019). Smart learning solutions, wearable learning, and user experience design. In I. Buchem, R. Klamma & F. Wild (Eds.), *Perspectives on Wearable Enhanced Learning (WELL): Current Trends, Research and Practice* (pp. 253–271). Springer International Publishing. https://doi.org/10.1007/978-3-319-64301-4_12
- +**Bannan, B.**, Dabbagh, N., & Walcutt, J.J. (2019). Instructional strategies for the future. In J.J. Walcutt & S. Schatz (Eds.), *Modernizing learning: Building the future learning ecosystem* (pp. 223-242). Washington, DC: Government Publishing Office. License: Creative Commons Attribution CC BY 4.0 IGO. <https://adlnet.gov/assets/uploads/Modernizing%20Learning.pdf>
- +**Bannan, B.**, (2017). Toward understanding the nature of design. In A.A. Carr-Chellman & G. Rowland (Eds.), *Issues in Technology, Learning, and Instructional Design: Classic and Contemporary Dialogues* (pp. 18-25). Taylor & Francis. <https://doi.org/10.4324/9781315708911>

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- Bannan, B., Gallagher, P., & *Lewis, B.** (2017). Next-generation learning: Smart medical team training. In H. Geng (Ed.), *Internet of Things and Data Analytics Handbook*, (pp. 95–105). John Wiley and Sons. <https://onlinelibrary.wiley.com/doi/abs/10.1002/9781119173601.ch5>
- +**Bannan, B.**, (2016). Analyzing context for mobile augmented reality prototypes in education: promoting design research with graduate students. In J. Traxler & A. Kukulska-Hulme (Eds.) *Mobile Learning: The Next Generation* (pp. 115–139). Taylor & Francis. <https://doi.org/10.4324/9780203076095>
- +***Martínez-Álvarez, P., & Bannan, B.** (2013). Blending practices: DBR and CALL to enrich emergent bilingual learners' concept and language development. In J.C. Rodriguez & C. Pardo-Ballester (Eds.) (pp. 127-156), *Design-based research in CALL* Computer Assisted Language Instruction Consortium (CALICO) Monograph Series. <https://clt.manoa.hawaii.edu/juliorodriguez/docs/DesignBasedResearchinCALL.pdf>
- +**Evmenova, A. & Bannan, B.** (2013). ACTIV - Adapted Captioning through Interactive Video: Cycles of Design Research. In T. Plomp & N. Nieveen (Eds.), *Educational Design Research: Introduction and Illustrative Cases* (2nd ed., pp. 253-276). SLO Netherlands Institute for Curriculum Development. <http://www.academia.edu/download/34147956/Ch13.pdf>
- +**Bannan, B.** (2013). GO Inquire – Geological Observational Inquiry: Cycles of Design research in inquiry-based geological reasoning. In T. Plomp & N. Nieveen (Eds.), *Educational Design Research: Introduction and Illustrative Cases* (2nd ed., pp.113-139). SLO Netherlands Institute for Curriculum Development. https://ris.utwente.nl/ws/portalfiles/portal/62305731/Ch01_51_total.pdf
- Bannan-Ritland, B.** (2013). The integrative learning design framework: An illustrated example from the domain of instructional technology. In T. Plomp & N. Nieveen (Eds.), *Educational Design Research: Part A: An Introduction*. (2nd ed., pp. 114-133). Enschede, Netherlands; SLO Netherlands Institute for Curriculum Development. <http://downloads.slo.nl/Documenten/educational-design-research-part-a.pdf>
- +**Bannan, B.** (2012). Design research and twice exceptional children: Toward an integration of motivation, emotion and cognition factors for a technology-based intervention. In D.Y. Dai (Ed.), *Design Research on Learning and Thinking in Education Settings: Enhancing Intellectual Growth and Functioning* (pp. 101-128). Routledge. <https://play.google.com/store/books/details?id=xg3HBQAAQBAJ>
- +**Bannan, B., *Peters, E., & *Martinez, P.** (2012). Mobile, inquiry-based learning and geological observation: An exploratory study. In D. Parsons (Ed.), *Refining current practices in mobile and blended learning: New applications* (pp. 156–173). IGI Global. <https://doi.org/10.4018/978-1-4666-0053-9.ch011> (Reprinted from “Mobile, inquiry-based learning and geological observation,” 2010, *International Journal of Mobile and Blended Learning* 2[3] 13–29. <https://doi.org/10.4018/jmbl.2010070102>
- +**Norton, P., van Rooij, S. W., Jerome, M. K., Clark, K., Behrmann, M., & Bannan-Ritland, B.** (2009). Linking theory and practice through design: An instructional technology program. In M. Orey, V. J. McClendon, & R. M. Branch (Eds.), *Educational media and technology yearbook* (pp. 47–59). Springer. https://doi.org/10.1007/978-0-387-09675-9_4

- +**Bannan-Ritland, B.** (2008). Teacher design research: An emerging paradigm for teachers' professional development. In A. E. Kelly, R. A. Lesh, & J. Baek (Eds.), *Handbook of design research methods in education: Innovations in science, technology, mathematics and engineering* (pp. 246-262). Routledge, Taylor & Francis.
<https://doi.org/10.4324/9781315759593>
- +**Bannan-Ritland, B.** & ***Baek, J.** (2008). Investigating the act of design in design research: The road taken. In A. E. Kelly, R. A. Lesh, & J. Baek (Eds.), *Handbook of design research methods in education: Innovations in science, technology, mathematics and engineering* (pp.299-319). Routledge, Taylor & Francis. <https://doi.org/10.4324/9781315759593>
- +**Kelly, A.E.**, ***Baek, J.Y.**, **Lesh, R.A.** & **Bannan-Ritland, B.** (2008). Enabling innovations in education and systematizing their impact. In A. E. Kelly, R. A. Lesh, & J. Baek (Eds.), *Handbook of design research methods in education: Innovations in science, technology, mathematics and engineering* (pp 3-18). Routledge, Taylor & Francis. <https://doi.org/10.4324/9781315759593>
- +**Middleton, J.**, **Gorard, S.**, **Taylor, C.** & **Bannan-Ritland, B.** (2008). The “compleat” design experiment: from soup to nuts. In A. E. Kelly, R. A. Lesh, & J. Baek (Eds.), *Handbook of design research methods in education: Innovations in science, technology, mathematics and engineering* (pp. 21-46). Routledge, Taylor & Francis.
<https://doi.org/10.4324/9781315759593>
- +***Schaff, J.**, **Bannan-Ritland, B.**, **Behrmann, M.** & **Ok, S.** (2005). Introducing electronic performance support systems in special education. In D.L. Edyburn, K. Higgins & R.Boone (Eds.) *Handbook of special education technology research and practice*. Knowledge by Design.
<https://play.google.com/store/books/details?id=weFwAAAACAAJ>
- Bannan-Ritland, B.**, (2004) Web-based instruction. In Kovalchick, A. & Dawson, K. *Educational technology: An encyclopedia* (pp.638-644). ABC-CLIO publication.
- Bannan-Ritland, B.**, **Dabbagh, N.** & ***Murphy, K.** (2002) Learning object systems as constructivist learning environments: Related assumptions, theories and applications. In D. Wiley (Ed.) *The instructional use of learning objects* (pp. 61-97). Association of Educational Communications and Technology.
<http://members.aect.org/publications/InstructionalUseofLearningObjects.pdf#page=63>
- Dabbagh, N.**, **Bannan-Ritland, B.**, & ***Silc, K.**(2001). Web-based authoring tools: pedagogical issues. In B.H. Khan (Ed.) *Web-based training*. Educational Technology Publications.
<https://play.google.com/store/books/details?id=bfKmplYXrFIC>
- Milheim, W.D.** & **Bannan-Ritland, B.** (2001). Web-based training: Current status and future potential. In B.H. Khan (Ed.) *Web-based training*. Educational Technology Publications.
<https://play.google.com/store/books/details?id=bfKmplYXrFIC>
- Bannan, B.** & **Milheim, W.D.** (1997). Existing WBI courses and their design. In B.H. Khan (Ed.) *Web-Based Instruction*. Educational Technology Publications.

REFEREED CONFERENCE PROCEEDINGS

(* denotes student)

- Bannan, B.**, *Torres, E.M., Purohit, H., *Pandey, R. & Cockroft, J.L. (2020). Sensor-based adaptive instructional systems in live simulation training. In R. Sottilare & J. Schwarz (Eds). *Adaptive Instructional Systems. HCII 2020. Lecture Notes in Computer Science, vol 12214* (pp. 3-14). Springer, Cham. https://doi.org/10.1007/978-3-030-50788-6_1
- *Pandey, R., Purohit, H. & **Bannan, B.** (2020). CitizenHelper-training: AI-infused system for multimodal analytics to assist training exercise debriefs at emergency services. *Proceedings of the 17th ISCRAM Conference, WiP Paper – AI Systems for Crises and Risks*, Blacksburg, VA. http://idl.iscram.org/files/rahulpandey/2020/2206_RahulPandey_et al2020.pdf
- Purohit, H., *Dubrow, S., & **Bannan, B.** (2019). Designing a multimodal analytics system to improve emergency response training. In P. Zaphiris & A. Ioannou (Eds.), *Learning and Collaboration Technologies. Designing Learning Experiences. HCII 2019. Lecture Notes in Computer Science, vol 11590* (pp 89-100). Springer, Cham. https://doi.org/10.1007/978-3-030-21814-0_8
- *Dubrow S. & **Bannan B.** (2019). Toward improving situation awareness and team coordination in emergency response with sensor and video data streams. In P. Zaphiris & A. Ioannou (Eds.) *Learning and Collaboration Technologies. Ubiquitous and Virtual Environments for Learning and Collaboration. HCII 2019. Lecture Notes in Computer Science, vol 11591*. Springer, Cham. https://doi.org/10.1007/978-3-030-21817-1_20
- *Dubrow, S., Dobbins, C., **Bannan, B.**, Zacarro, S., Peixoto, N., Purohit, H., Rana, M. & Au, M. (2017). Using IoT sensors to enhance simulation and training in multiteam systems. *Proceedings of the Interservice/Industry Training, Simulation, and Education Conference (IITSEC) 1-10*. Orlando, FL. <https://www.xcdsystem.com/iitsec/proceedings/>
- *Fake, H., *Whiteman, J., & **Bannan, B.** (2017). Collaborative Game Design: A Bounded Case Study of Undergraduate Students in a Capstone Course. In B.K. Smith, M. Borge, E. Mercier & K.Y. Lim (Eds.), *Making a Difference: Prioritizing Equity and Access in CSCL, 12th International Conference on Computer Supported Collaborative Learning (CSCL) 2017, Volume 1* (pp. 119-126). Philadelphia, PA: International Society of the Learning Sciences. <https://cscl17.files.wordpress.com/2018/02/finalvol2cscl2017.pdf>
- Gallagher, P., B., **Bannan Blake-Plock, S.** & *Lewis, B. (2015). Embedding cyber-physical systems for assessing performance in training simulations. *Proceedings of the Interservice/Industry Training, Simulation and Education Conference (IITSEC)*. Orlando, FL. <https://www.xcdsystem.com/iitsec/proceedings/>
- *Ortel, J., **Bannan, B.** & Thompson, J. (2015). Factors impacting physical therapist's adoption of clinical prediction rules and manipulation after continuing education unit training: A case report. *Proceedings of the Orthopaedic Section and Sports Physical Therapy Section of the American Physical Therapy Association (APTA), The Journal of Orthopaedic and Sports Physical Therapy, 45(1) A89*. <https://www.jospt.org/doi/pdf/10.2519/jospt.2015.45.1.A74>
- Bauters, M., Cook, J., Colley, J., **Bannan, B.**, Schmidt, A. & Leinonen, T. (2013). Toward a design research framework for designing support for informal work-based learning. In M. Divitini, T. Ley, S. Lindstaedt, V. Pammer, & M. Prill (Eds.). *ECTEL meets ECSCW 2013: Workshop on Collaborative Technologies for Working and Learning* (pp. 1-5). <http://ceur-ws.org/Vol-1047/ectel-meets-ecscw-2013-proceedings.pdf>

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- Cook, J., **Bannan**, B. & Santos, P. (2013). Seeking and scaling model for designing technology that supports personal and professional learning networks In M. Divitini, T. Ley, S. Lindstaedt, V. Pammer, & M. Prill (Eds.). *ECTEL meets ECSCW 2013: Workshop on Collaborative Technologies for Working and Learning* (pp.15-19). Cyprus, Greece. <http://ceur-ws.org/Vol-1047/ectel-meets-ecscw-2013-proceedings.pdf>
- Bannan**, B. (2010). The integrative learning design framework: An illustrated example from the domain of instructional technology. In T. Plomp, & N. Nieveen (Eds.), *An introduction to educational design research: Proceedings of the seminar conducted at the East China Normal University, Shanghai (PR China), November 23-26, 2007* (pp. 53-72). Stichting Leerplan Ontwikkeling (SLO). https://ris.utwente.nl/ws/portalfiles/portal/14472302/Introduction_20to_20education_20design_20research.pdf
- Bannan, B. & *Baek, J.Y. (2004). The integrative learning design framework: Combining research methods and design processes. In M. Simonson & M. Crawford (Eds.), *2004 Annual Proceedings: Association for Educational Technology and Communications, Volume 1, Chicago, IL* (p.81-87). <https://files.eric.ed.gov/fulltext/ED499961.pdf>
- Behrmann, M., Goor, M. & **Bannan-Ritland**, B. (2000). Electronic Portfolios as a Precursor to Electronic Dissertations. *Proceedings of the Electronic and Thesis Dissertation Conference, Tampa, Florida*.
- Dabbagh**, N., Bannan-Ritland, B., & Silc, K. (1999). Web-based course authoring tools: Pedagogical implications. *Proceedings of the 1999 Ed-Media World Conference on Educational Multimedia, Hypermedia and Telecommunications* (pp. 248-253), Seattle, Washington.
- [Haag] **Bannan**, B., & Snetsinger, W. (1993). Aesthetics and screen design: An integration of principles. In D. Beauchamp, R.A. Braden & J.C. Clark (Eds.) *Selected Readings from the 25th Annual Conference International Visual Literacy Association Conference*, pp 92-97. Rochester, New York (pp 92-97) (ED370602). ERIC. <https://files.eric.ed.gov/fulltext/ED370602.pdf>
- Bannan**, B. & Milheim, W.D. (1996). Design, development and delivery of instructional materials over the Internet. *Proceedings of the WebNet: World Conference of the Web Society*, San Francisco, CA.
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NON-REFEREED JOURNAL ARTICLES, REPORTS, AND SCHOLARLY DOCUMENTS

- Bannan**, B., Dubrow, S., Dunaway, M., Rhee, S., Skidmore, D., & Torres, E. (2020). *Global City Teams Challenge Public Safety SuperCluster Progress Report 2018-2019*. National Institute for Standards and Technology, Special Publication. Gaithersburg, MD. <https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1900-203.pdf>
- Taylor, M.S., **Bannan**, B., *Dubrow, S., Miller, A, Ives, S. & Evmenova, A., (2018) *Joint Event Training After Action Review: Fairfax County Fire and Rescue Department in conjunction with Fairfax County Police Department Internal Document* [Unpublished manuscript]. Fairfax Fire and Rescue Department, Fairfax, VA.

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- Bannan, B., Burbridge, J., Dunaway, M., & Skidmore, D.** (2019) *Global City Teams Challenge: Blueprint for Smart Public Safety in Connected Communities. An Initiative of the Global City Teams Challenge*. National Institute for Standards and Technology, Gaithersburg, MD. https://pages.nist.gov/GCTC/uploads/blueprints/2019-PSSC_Blueprint_201907005.pdf
- Bannan, B., Burbridge, J., Dunaway, M., & Skidmore, D.** (2017) *Global City Teams Challenge: Blueprint for Smart Public Safety in Connected Communities. An Initiative of the Global City Teams Challenge*. National Institute for Standards and Technology, Gaithersburg, MD. https://pages.nist.gov/GCTC/uploads/blueprints/20170824-PSSC_Blueprint_20170823_FINAL.pdf
- Bannan, B.** (2015) Learning and instructional apps. *Educational Technology Encyclopedia*. Sage.
- *Martinez, P., *Peters, E., **Bannan, B.** & *Baek, J. (2011) Learning to observe in a geomorphological context (EJ907480). *ERIC*. <https://eric.ed.gov/?id=EJ907480>
- Bannan-Ritland, B., *Egerton, E., *Page, J., & Behrmann, M.** (2007). A performance support tool for novice reading facilitators. *Performance Improvement*, 39(6), 47–54. <https://doi.org/10.1002/pfi.4140390612>
- Bannan-Ritland, B. & Kommers, P.** (1998) Editorial: Special issue on Web-based instruction. *Educational Media International* 35(2) p.61-62.
- Bannan, B.** (1996). Computers as a cognitive tool: Examples in the classroom. *The American Association of School Administrators Professor*, 18(3), 10-12.
- Bannan, B.** (1995). The changing role of computers in education. *The American Association of School Administrators Professor*, 18(2), 10-12.
- [Haag] **Bannan, B. & Grabowski, B. L.** (1995). The design of compact disc-interactive: incorporating instructional design principles. *Educational Technology*, 35(2), 36-39.
- King, J., Clark, K., Bergman, T., Foxon, M., [Haag] **Bannan, B.**, Fullerton, K., Hale, D., Lee, I., & Surry, D. (1993). The AECT convention internship: A once in a lifetime opportunity. *Tech Trends*, 38 (4), 14.
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TECHNOLOGY-BASED INSTRUCTIONAL AND TRAINING PRODUCTS/PROTOTYPES

Internet of Things/Cyber-Physical Systems

- Purohit, H., Pandey, R. & Bannan, B. (2020). *CitizenHelper Training: AI-infused System for Multimodal Analytics to Assist Training Exercise Debriefs for Emergency Services*, [Multimodal analytics application with machine learning algorithm prototype development] [Unpublished raw data]. Description available <https://par.nsf.gov/biblio/10176440>.
- Wengrovitz, M., **Bannan, B.**, Zobel, J. Ihrle, D. & Heyman, D. (2019). *SMART City IoT Innovation*, [Multi-sensor in-building application development] [Unpublished raw data]. Description available <https://www.iotm2mcouncil.org/iot-library/news/smart-cities-news/dhs-turns-to-iot-to-tackle-active-shooters/>

- Bannan, B., Purohit, H. & Segall, J.** (2017 - 2018). *SMART Emergency Medical and First Response Multiteam Systems*, [Embedded sensor and artificial intelligence algorithm application prototype development] [Unpublished raw data]. Description available from [https://gctc.opencommons.org/SMART Emergency Medical and First Response Multiteam Systems](https://gctc.opencommons.org/SMART_Emergency_Medical_and_First_Response_Multiteam_Systems)
- Segall, J., **Bannan, B.** & Dubrow, S. (2016). *Smart Emergency Medical Teams*, [Embedded sensor application prototype development] [Unpublished raw data]. Description available from <https://inflowinteractive.com/category/xapi/>
- Bannan, B., Gallagher, P.S. & Blake-Plock, S. (2015). *Ecosystem for Smart Medical Team Training*, [Embedded proximity sensor application prototype development] [Unpublished raw data]. Description available from <https://www.yetanalytics.com/media-coverage/global-cities-team-challenge-ecosystem-for-smart-medical-team-training>.
- Behrmann, M., **Bannan-Ritland, B.**, Wang, S., McCarron, K., & Clark. (2005). *TTAC Online: Technical Training Assistance Center Online Learning Community* [Web site development]. George Mason University. <http://ttaconline.org/>.
- Bannan-Ritland, B., Behrmann, M., Takemoto, C., Schaff, J. & Castellani, J.** (2003). *LiteracyAccess Online* [Website development]. George Mason University. Description available at <https://eric.ed.gov/?id=EJ654218>

Unpublished Mobile Learning Prototypes Developed by Graduate Students with Instructor Support

- (2013-2014). *Smithsonian Natural History Museum – Q?rius Quest*, [Mobile application prototype development]. Faculty Facilitator of Student Design Team
- (2013-2014). *PBS Kids Mobile Learning Program Website*, [Web-based and Mobile application prototype development]. Faculty Facilitator of Student Design Team
- (2013-2014). *Old Town Fairfax Historic Walking Tour*, [Mobile application prototype development]. Faculty Facilitator of Student Design Team
- (2013-2014). *UX4ID- User Experience Performance Support for Instructional Designers*, [Mobile application prototype development]. Faculty Facilitator of Student Design Team
- (2013-2014). *ACQUAINT – Getting Acquainted with Life at George Mason University for International Students*, [Mobile application prototype development]. Faculty Facilitator of Student Design Team
- (2013-2014). *2Teach – Social Web Service for Managing and Sharing Educational Resources*, [Mobile application prototype development]. Faculty Facilitator of Student Design Team
- (2013-2014). *Find Information and Search Healthcare (FISH)*, [Mobile application prototype development]. Faculty Facilitator of Student Design Team.
- (2013-2014). *iBoat*, [Mobile application prototype development]. Faculty Facilitator of Student Design Team

(2012-2013). *Apps4VA Project: Focused Learning Opportunities (FLO)*, [Mobile application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2012-2013). *SpeakEasy App*, [Mobile application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2012-2013). *GoalConnection App*, [Mobile application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2012-2013). *ESL2GO App*, [Mobile application prototype development]. Faculty Facilitator of Student Instructional Design Team.

Unpublished Augmented Reality Mobile Learning Prototypes Developed by Graduate Students with Instructor Support

(2011-2012). *Using Augmented Reality to Engage Adolescents at the National Zoo*, [Mobile augmented reality application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2011-2012). *Museum on the Mall Mobile app*, [Mobile augmented reality application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2011-2012). *Arborist Certification Exam Preparation Mobile app*, [Mobile augmented reality application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2011-2012). *Physical Therapy Kinection: At-Home PT Facilitator Using Xbox Kinect*, [Mobile augmented reality application prototype development]. Faculty Facilitator of Student Instructional Design Team

(2011-2012). *Arborist Certification Exam Preparation Mobile app*, [Mobile augmented reality application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2011-2012). *National Museum of the American Indian Mobile app*, [Mobile augmented reality application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2010-2011). *GeoInteractive*, [Mobile augmented reality application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2010-2011). *Using Augmented Reality to Conduct Chemistry Labs*, [Mobile augmented reality application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2010-2011). *History Mystery*, [Mobile augmented reality application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2010-2011). *Mount Vernon Tour*, [Mobile augmented reality application prototype development]. Faculty Facilitator of Student Instructional Design Team.

Unpublished Mobile Learning App Prototypes Developed by Graduate Students with Instructor Support

(2009-2010). *Mobile Malaria Training for Healthcare Workers in Africa*, [Mobile application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2009-2010). *Mobile-Assisted Learning for High School Spanish Students Application*, [Mobile application prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2009-2010). *Trig Relic Quest: Designing for iTouch*, [Mobile application prototype development]. Faculty Facilitator of Student Instructional Design Team

Unpublished eLearning Prototypes Developed by Graduate Students with Instructor Support

(2008-2009). *Dollars and Sense*, [eLearning prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2008-2009). *Agora Financial for Families*, [eLearning prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2008-2009). *Agora Financial Education*, [eLearning prototype development]. Faculty Facilitator of Student Instructional Design Team.

(2007-2008). *GAMED: Handheld Technology for Twice Exceptional Learners*, [Mobile eLearning prototype development]. Faculty Facilitator of Student Instructional Design Team.

Unpublished Website Prototypes Developed by Graduate Students with Instructor Support

(2004-2010). *GO Inquire (Geomorphological Observational Inquiry)*, [Web site prototype development]. Description available at https://ris.utwente.nl/ws/portalfiles/portal/62305731/Ch01_51_total.pdf

(1999 to 2003). *LiteracyAccess Online: Web-based Electronic Performance Support Prototype*, [Web Site Prototype Development]. Description available at <https://eric.ed.gov/?id=EJ654218>.

Unpublished Multimedia Productions

(1999). *Building Connections: Orientation Supplement for Senior Executive Service Department of Defense Personnel*, [CD-ROM Production]. Department of Defense. Faculty Facilitator of Student Instructional Design Team

(1995). *From Land to Landfill - Hunger* [CD-ROM Production]. The Pennsylvania State University Nutrition Center. Lead Instructional Designer

(1995). *From Land to Landfill - Packaging*, [CD-ROM Production]. The Pennsylvania State University Nutrition Center. Lead Instructional Designer

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- (1992). *Wyeth-Ayerst Norplant System Resource Disk - Computer-Based Tutorial on Insertion and Removal of the Norplant System* [Computer-assisted Instruction Production]. Project Manager
- (1996-1997). *Pauling World*. [Virtual Reality Environment]. National Science Foundation in collaboration with Christopher Dede. Contributing Instructional Designer
- (1991-1992). *An Easier Way - An Interactive Video Program on Troubleshooting Skills*, [Computer-assisted Instruction Production]. Merck & Co. Co-producer.
- (1990-1991). *Physical Assessment and Basic Self-Care of the Post-Partum Patient* [Computer-assisted Instruction - Interactive Disc Production]. Graduate student Project manager and instructional designer, Fall, 1990

Videotape Productions

- (1990). *The Chester County Intermediate Unit Early Intervention Program*, [Video Production]. Writer and Producer
- (1990). *The Child and Career Development Center's Community-Based Instruction*, [Video Production]. Writer and Producer
- (1989). *The Child and Career Development Center's Work Experience Program*, [Slide-Tape Production]. Producer and Director
- (1987) *Bryn Mawr Rehabilitation Hospital*, [Slide-Tape Production]. Producer

SCHOLARLY PRESENTATIONS

INVITED KEYNOTE/PANEL SPEAKER

- Torres, E. M., **Bannan**, B., Campbell, L. N. P., Dubrow, S. & Purohit, H. (2020, October 8). *First responder perspective of technology and MTS learning during debriefs*. In E. M. Torres (Co-Chair), V. Sessa (Co-Chair), Learning in Multiteam Systems: Processes and Facilitators [Panel presentation]. Interdisciplinary Network for Group Research 15th Annual Conference. <https://www.youtube.com/watch?v=leQC6kL3mYA&feature=youtu.be> (delivered by E. Torres).
- Dunaway, M., **Bannan**, B. & Skidmore, D. (2020, June 24). *Smart Public Safety* [Panel presentation]. National Public Safety Telecommunications Council Emerging Technologies Working Group.
- Ihrie, D., **Bannan**, B., Holden, J.P., Rivero, C. & Singh, I. (2019, Sept 30-Oct 2). *The Smart State: Collaboration and Innovation in the Commonwealth of Virginia* [Panel Presentation]. Smart Cities Week, Washington, DC.
- Ihrie, D., **Bannan**, B., Cannon, M., Reid, P. & Wood, A. (2019, September 4-5). *Smart Communities Today* [Panel presentation]. Commonwealth of Virginia Innovative Technology Symposium (COVITS) Richmond, VA.

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- Bannan, B.** (2018, March 8). *The connected future and data analytics* [Keynote Address]. The Maryland Distance Learning Association Annual Spring Conference. Linthicum, MD. <http://www.marylanddla.org/past-events/>
- Bannan, B.** (2017, November 30-Dec 1). *Community-University-Industry collaboration models for smart and connected communities: Leveraging a user experience (UX)/Design research approach* [Panel presentation]. The National Science Foundation Smart and Connected Communities Workshop, Alexandria, VA.
- Bannan, B.** (2017, July 10). *Developing a Multiteam Systems Smart City Solution through Human-centered, Participatory Design Research* [Panel presentation]. American Association for the Advancement of Science. Washington, DC.
- Bannan, B.** (2017, May 18). *The importance of broadband in building smart communities*. Invited Panel Presentation at The National League of Cities Infrastructure Week 2017 [Panel presentation]. Washington D.C. <https://www.facebook.com/NationalLeagueofCities/videos/10154845421167701>
- Bannan, B.** (2016, September 9). *Next gen high schools and smart cities: connecting through design, data and STEM learning* [Panel presentation]. The 2016 Next Generation STEM High School: A Forum Supported by the NSF. Washington, DC. <https://nextgenhs.circlcenter.org/materials/>
- Bannan, B.** (2015, August 5). Keynote Address: *Learning analytics applied: Panel discussion of the Case of Surgical/Emergency Medical Services Training Simulation* [Keynote address]. The Networking Information Technology Research and Development Program Sub-Committee (NITRD) of the National Science and Technology Council's (NSTC) Committee on Technology. Office of Science, Technology & Policy, The Executive Office of the President and the President's Council of Advisors on Science and Technology, Arlington, VA. https://www.nitrd.gov/nitrdgroups/index.php?title=SmartCities_CaseExample_Bannan
- Bannan, B.** (2015, November 9). *Can smart cities contribute to STEM learning and workforce development?* [Panel presentation]. White House Summit 2015 Next Generation STEM High School: A Forum Supported by the NSF. Washington, DC. <http://nsfstemforum.edc.org/speakers/>
- Bannan, B.** (2015, September 15-18). *Ecosystem for smart medical simulation team training (ESMTT)* [Panel presentation]. Design Challenge: Envisioning Wearable Enhanced Learning, Special Interest Group on Wearable Enhanced Learning (SIG WELL), European Association of Technology Enhanced Learning (EATEL). Toledo, Spain
- Bannan, B.,** Gallagher, P.S. & Blake-Plock, S. (2015, June 8-10). *Learning analytics applied: Panel discussion of the Case of Surgical/Emergency Medical Services Training Simulation* [Panel presentation]. Enterprise Learning Conference (ECL15) Building Smarter Organizations, Manassas, VA.
- Bannan, B.** (2014, June). *Design research. Invited Panel at the International Forum on Educational and Technology: New Learning Scenarios from a Transformative Vision* [Panel presentation]. International Forum of Educational Technology, Applied Research Group in Education and Technology (ARGET) Department de Pedagogia Universitat Rovira, Tarragona, Spain.
- Bannan, B.** Steffens, K. Delgado-Kloos, C., & Cela-Ranilla, J. (2014, June). *Learning Environments* [Panel presentation]. International Forum of Educational Technology, Applied Research Group in Education and Technology (ARGET) Department de Pedagogia Universitat Rovira, Tarragona, Spain.

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- Reiser, B., Hannafin, M., Klein, J. & **Bannan**, B. (2012, November). *AECT Presidential Session Publish, don't perish: Tips for writing research manuscripts* [Panel presentation]. Association for Educational Communications and Technology Conference, Louisville, KY.
- Bannan**, B. (2010, September 13). *Design research: A framework and examples* [Keynote address]. BYU Annual Scholar Invited Keynote Speaker Series, Brigham Young University, Provo, UT.
- Bannan**, B. (2010, January). *Trends in Technology and Education* [Keynote address]. Ministry of Education, Congreso Nacional design research Educadores at the Universidad UPC, Lima, Peru.
- Bannan**, B., Peters, E., Martinez, P., Raime, A., Baek, J. & Stafford, K. (2010, January). *Conducting Design Research in the Classroom* [Panel presentation]. Ministry of Education, Congreso Nacional de Ecuadores, Universidad UPC, Lima, Peru.
- Bannan**, B., Martinez, P., Peters, E., Raime, A., Baek, J. & Stafford, K. (2010, January). *Teacher Workshop and Panel Presentation: GO Inquire* [Panel presentation]. Ministry of Education, Congreso Nacional de Ecuadores, Universidad UPC, Lima, Peru.
- Bannan**, B., Martinez, P., Peters, E., & Raime, A. (2010, January). *Geological Observational Inquiry: GO Inquire* [Panel presentation]. Cegecoop La Union School, Lima, Peru.
- Bannan**, B., Martinez, P., Peters, E., & Raime, A. (2010, January). *Geological Observational Inquiry: GO Inquire* [Panel presentation]. Norteamericano Abraham Lincoln School, Lima, Peru.
- Bannan**, B. (2010, January). *Educational Technology: Design Thinking* [Panel presentation], La Union School, Lima, Peru.
- Bannan**, B. (2010, January). *Educational Technology: Design Thinking* [Panel Presentation]. Peruano Norteamericano Abraham Lincoln School, Lima, Peru.
- Baek, J., Akker, J., **Bannan**, B., Carmona, G., Hjalmarson, M., Lesh, R.A., Kelly, A.E., Lobato, J., Nieveen, N., & Sloane, F. (2009, April 13-16). *Design Research Methods in Education* [Panel presentation]. Annual Conference of the American Educational Research Association, San Diego, CA.
- Bannan**, B. (2009, November 30-December 3). *Challenges for integrative design and research in mobile learning* [Panel presentation]. Alpine Rendez-Vous, STELLAR Network of Excellence by the Ludwig-Maximilians-Universitat Munich and London Mobile Learning Group. Garmisch-Partenkirchen, Germany.
- Bannan-Ritland**, B. (2008, November 4-8). *AECT Early Career Symposium* [Panel presentation]. Annual Conference of the Association for Educational Communications and Technology, Orlando, FL.
- Bannan-Ritland**, B. (2008, February 22). *Design Research and SCORM: From learning object reusability to the reuse of knowledge* [Keynote Address]. Keynote address at the ID + SCORM Symposium, Brigham Young University, Provo, UT.
- Bannan-Ritland**, B. (2007, November) *International Seminar on Design Research* [Panel presentation]. East China Normal University in Shanghai, China.
- Bannan-Ritland**, B. (2007, November) *Design Research and Instructional Technology* [Panel Presentation]. Beijing Normal University in Beijing, China.

- Bannan-Ritland, B.** (2007, May) *eLearning and Design Research [Keynote address]*. Canadian Association for Distance Education, Montreal, Canada. (keynote delivered by colleague due to family emergency).
- Middleton, J., Gorard, S., Taylor, C. and **Bannan-Ritland, B.** (2004, April 12-16) Research in Mathematics Education: *Examining the rigor and applicability of design experiments* [Panel presentation]. Annual Meeting of the American Educational Research Association, San Diego, CA.
- Bannan-Ritland, B.**, (2004, January,) *Comprehension Strategy Support in Inquiry-based Science* [Panel presentation] National Science Foundation Mentoring & Networking Workshop for CAREER Awardees, Arlington, VA.
- Bannan-Ritland, B.**, (2003, February) *Design Experiment Seminar* [Panel presentation]. Education and Human Resources Directorate, National Science Foundation
- Bannan-Ritland, B.**, Hill, J., Nelson, L., Moore, J., Wiley, D. & Yamagata-Lynch, L. (2002, November). *Where is Instructional Technology? Junior Faculty Reflections on the State of the Field* [Panel Presentation]. Annual Conference of the Association for Educational Communications & Technology, Dallas TX.
- Behrmann, M., **Bannan-Ritland, B.**, Takemoto, C. & Ok, S. (2002, September). *LiteracyAccess Online* [Panel presentation]. National Center for Technology Innovation: The Future of Learning for All Students Technology Demonstration Event and Receptions sponsored by the U.S. Office of Special Education Programs. Washington, D.C.
- Bannan-Ritland, B.** (1998, June 20-25) *Theoretical perspectives on Web-Based Instruction* [Panel presentation]. World Conference on Educational Multimedia and Hypermedia and Educational Telecommunications, Freiburg in Briesgau, Germany.
- Bannan-Ritland, B.** & Dabbagh, N. (1999, December). *Best practices: On-line content management incorporating instructional strategies* [Panel Presentation]. Blackboard Learning Conference. Washington, DC.

INVITED NATIONAL INTERVIEWS/WEBINARS

- Emerald Planet (2020, May 13). *Brenda Bannan: Toward Resilient Human-Machine Partnerships for First Responder Preparedness* [Video]. The Emerald Planet.
<https://www.youtube.com/watch?v=Ti1p16DjS8s&feature=youtu.be>
- Khan's Digital World Fox 5 DC PLUS WDCA (2019, October 27). *Brenda Bannan: Internet of Things (IoT) Law Enforcement Team Training* [Video]. Khan's Digital World.
<https://www.youtube.com/watch?v=a3sQ6fgh1IM>
- The National League of Cities (2017, May 18). *The Importance of Broadband in Building Smart City Communities Panel*. Infrastructure Week - The National League of Cities [Video].
<https://www.facebook.com/NationalLeagueofCities/videos/10154845421167701>
- Khan's Digital World (2016, April 29). *Internet of Things (IoT) Smart Medical Team Training* [Video]. <https://www.youtube.com/watch?v=uC9-WVih6yA>
- National Science Foundation (NSF) (2016, October 3). Next Generation STEM High Schools Forum Panel [Video]. https://www.youtube.com/watch?v=Q3zV4-O_YVk

The Networking and Information Technology Research and Development (NITRD) Program (2015, November 5). A Smart City Case Example – Dr. Brenda Bannan [Video].
<https://www.youtube.com/watch?v=xCTrONx2qE0>

GMU TV (2015, May 21). *Brenda Bannan & P. Shane Gallagher: Global City Teams Challenge wants to make a smarter community* [Video].
<https://www.dropbox.com/sh/wbdcmyuusgzwwtd/AAAkngt2KLDmNXMDE1SCmGYa?dl=0&preview=Main+video+Simulation+short-GMU+TV+Vimeo+HD+720p.mov>

MoDev UX (2015, January 18). *Brenda Bannan: Integrating Lean UX and User Research in a Learning Technologies Graduate Program* [Video].
<https://www.youtube.com/watch?v=77f962iFZ9w>

International Forum on Education and Technology (2014, July 28). *Brenda Bannan: Educational Technology and Sensor-based Technology @FIET in Tarragona, Spain* [Video].
<https://www.youtube.com/watch?v=OuMhhtQnSBw>

Cox Communication Channel 8 Public Television School Talk with Nadjia Varney (2003, September 5). *Brenda Bannan: Educational Technology* [Video]. http://www.schooltalk.tv/cat_nمبر.htm

NATIONAL/INTERNATIONAL REFEREED PRESENTATIONS (* denotes student)

Bannan, B. *Torres, E.M., Purohit, H., *Pandey, R. & Cockroft, J.L. (2020, July 19-24). *Sensor-based adaptive instructional systems in live simulation training* [Paper presentation]. HCI International 2020 Conference. Copenhagen, Denmark (moved to virtual presentation due to COVID-19).

Bannan, B. (2019, December 3-5). *IoT technologies, UX design and AI/machine learning in live simulation training deployment and research* [Symposium presentation]. National Science Foundation Convergence Accelerator on Big Data and Artificial Intelligence (AI). University of South Carolina, Columbia, SC.

Bannan, B. (2019, September 23-25). *Multiteam systems learning and sensor-based mobile behavioral analytics* [Poster presentation]. Synthesis and Design Workshop: Digitally-Mediated Team Learning,” National Science Foundation (NSF) Project 1825007.

Bannan, B. (2019, August 26-28). *Learning from sensor-based analytics for first responder training* [Conference presentation]. Presentation at the 2019 National Training & Simulation iFEST Conference, Alexandria, VA. <https://www.trainingsystems.org/-/media/sites/ntsa/events/91d0/proceedings/paper-presentations---bannan---tues-1515.ashx>

*Dubrow, S. & **Bannan, B.** (2019, July 26-31). *Toward improving situation awareness and team coordination in emergency response with sensor and video data streams* [Paper presentation]. HCI International Conference 2019. Orlando, FL.

Purohit, H., *Dubrow, S. & **Bannan, B.** (2019, July 26-31). *Designing a multimodal analytics system to improve emergency response training* [Paper presentation]. HCI International 2019 Conference. Orlando, FL.

Bannan, B., Purohit, H. & Wengrovitz (2019, July 10-12). *Multiteam systems learning and sensor-based mobile behavioral analytics* [Conference presentation]. National Institute for Standards and Technology Global City Teams Challenge Expo, Washington, DC.

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- Ihrie, D., Heyman, D. & **Bannan, B.**, (2019, July 10-12). *Smart city IoT innovation (SCITI) Perspectives* [Conference presentation]. Presentation at the National Institute for Standards and Technology Global City Teams Challenge Expo, Washington, DC.
- Bannan, B.** (2019, May 20-23). *Toward Engineering Learning for Team and Multiteam Systems in Emergency Response* [Conference Presentation]. Inaugural IEEE ICICLE Conference on Learning Engineering, George Mason University, Arlington, Virginia.
- Bannan, B.** (2019, March 18-20). *SMART Emergency Medical and First Response Multiteam Systems* [Conference presentation]. The Department of Homeland Security (DHS) Science and Technology Directorate (S&T) Cybersecurity and Innovation Showcase, Washington, DC.
- Bannan, B., *Dubrow, S. & Jenkins, J.** (2018, October 30). *First Responder Priorities for R&D*. [Workshop Presentation] National Institute for Standards and Technology Global City Teams Challenge Smart & Secure Cities and Communities Challenge, National Institute for Standards and Technology, Gaithersburg, MD
- Bannan, B.** (2018, June 24-25). *Live sims for first responder training* [Conference presentation]. Serious Play Conference, Serious Games Institute Manassas, VA.
- *Dubrow, S., Shulman, M., *Torres, E., Dobbins, C., Zacarro, S. & **Bannan, B.** (2018, April 19-21). *Leader roles and shifts in crisis management multiteam systems* [Paper presented]. Society for Industrial and Organizational Psychology. Chicago, IL.
- Bannan, B.** (2018, March 8-9). *User Experience Design and Distributed Complex Learning Environments* [Conference presentation]. The Maryland Distance Learning Association. Linthicum, MD.
- Bannan, B.** (2017, September 26). *Design research in smart connected communities for all: Opportunities for STEM learning and inclusion* [Conference presentation]. The National Science Foundation ECR PI Meeting. Alexandria, VA.
- Bannan, B.** (2017, August 28-29). *Smart emergency medical and first response multiteam systems* [Conference presentation]. The National Institute of Standards and Technology Global City Teams Challenge Expo. Washington, DC.
- *Fake, H., *Whiteman, J. & **Bannan, B.** (2017, June 18-21). *Collaborative game design: A bounded case study of undergraduate students in a capstone course* [Conference presentation]. 12th International Conference on Computer Supported Collaborative Learning (CSCL), Philadelphia, PA.
- *Zawawi, B. & **Bannan, B.** (2017, April 20-22). *Designing online courses for higher education: An exploratory case study of the roles of instructional designers in supporting faculty members* [Conference presentation]. Online Learning Consortium Innovate. New Orleans, LA.
- Battista, A., *Dubrow, S., Sanko, J., and **Bannan, B.** (2017, January 28 – February 1). *How interprofessional healthcare teams coordinate tasks and communicate during a scenario-based simulation* [Poster presentation]. 17th International Meeting for Simulation in Healthcare, International Meeting on Simulation in Healthcare, Orlando, FL.
- *Whiteman, J., *Fake, H. & **Bannan, B.** (2016, October 21-25). *Collaborative practices in an undergraduate capstone game design course* [Conference presentation]. Association for Educational Communications and Technology (AECT) conference, Las Vegas, NV.

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- Bannan, B.** (2016, September 13-16). *Ecosystem for Smart Medical Team Training: Wearable Enhanced Learning Workshop* [Conference Presentation]. European Conference for Technology Enhanced Learning (EC-TEL) Lyon, France.
- Bannan, B., Segall, J. & Purohit, H.** (2016, October 25-26). *SMART emergency medical teams and Smart Responder System* [Conference Presentation]. Global City Teams Challenge SuperCluster Kickoff Event, National Institute for Standards and Technology (NIST). Gaithersburg, MD.
- Bannan, B., Segall, J., Jenkins, J. & Costa, J.** (2016, June 15-16). *Smart City Application: SMART emergency medical teams* [Conference presentation]. Smart Cities Innovation Summit. Austin, TX.
- Bannan, B., Gallagher, S.P., *Lewis, B. & Battista, A.** (2016, April 27-May 1). *Exploring internet of things and analytics in team-based simulations* [Paper presentation] Annual American Educational Research Association (AERA), Washington DC.
- Bannan, B. & Segall, J.** (2016, March 22-23). *SMART emergency medical teams* [Conference presentation]. Global City Teams Challenge Tech Jam, National Institute for Standards and Technology (NIST). Gaithersburg, MD.
- Battista, A., Bannan, B. & Gallagher, S.** (2016, January 16-20). *Development and proof of concept for ecosystem for smart medical simulation team training* [Paper presentation]. Society for Simulation in Healthcare, San Diego, CA.
- Gallagher, P., Bannan, B., Blake-Plock, S. & *Lewis, B.** (2015, November 30-December 4). *Embedding cyber-physical systems for assessing performance in training simulations* [Paper presentation]. Interservice/Industry Training, Simulation and Education Conference (IITSEC). Orlando, FL.
- Bannan, B.** (2015, September 15-18). *Internet of Things (IoT) and Learning Analytics: The Case of Emergency Response/Medical Services Training Simulation* [Conference presentation]. European Conference on Technology Enhanced Learning (EC-TEL), Toledo, Spain.
- Bannan, B., Gallagher, P.S. & Blake-Plock, S.** (2015, June 1). *Ecosystem for smart medical team training exposition* [Conference presentation]. 2015 Global City Teams Challenge Festival. National Building Museum. Washington, DC.
- Bannan, B., Gallagher, P.S. & Blake-Plock, S.** (2015, February 12-13). *Ecosystem for smart medical team training* [Conference presentation]. US Ignite Global City Teams Challenge Tech Jam, National Institutes for Standards and Technology, Gaithersburg, MD.
- *Ortel, J., Bannan, B. & Thompson, J.** (2015, February 4-7). *Factors impacting physical therapist's adoption of clinical prediction rules and manipulation after CEU training: A case report* [Paper presentation]. Orthopaedic Section and Sports Physical Therapy Section of the American Physical Therapy Association (APTA), Indianapolis, IN.
- *Al-Freih, M., Dabbagh, N., & Bannan, B.** (2015, February 4-6). *Increasing learners' retention and persistence in MOOCs: Design-Based Research (DBR) plan* [Paper presentation]. 7th Annual Conference on Higher Education Pedagogy, Blacksburg, Virginia.
- Bannan, B. & Cela-Ranilla, J.** (2014, June 23-26). *Design of Learning: Design research* [Conference presentation]. International Forum of Educational Technology, Applied Research Group in Education and Technology (ARGET) Department de Pedagogia Universitat Rovira, Tarragona, Spain.

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- Bannan, B.**, Steffens, K., Delgado-Kloos, C., & Cela-Ranilla, J. (2014, June 23-26). *Learning Environments* [Paper Presentation]. International Forum of Educational Technology, Applied Research Group in Education and Technology (ARGET) Department de Pedagogia Universitat Rovira, Tarragona, Spain.
- Bannan, B.** (2014, May 19-20). *Integrating Lean UX and User Research in a Learning Technologies Graduate Program* [Conference presentation]. National MoDev UX conference, McLean, VA
- Cook, J., **Bannan, B.** & Santos, P. (2013, September 21). *Seeking and scaling model for designing technology that supports personal and professional learning networks* [Conference Presentation]. EC-TEL meets ECSCW 2013; Workshop on Collaborative Technologies for Working and Learning. Cyprus, Greece. (presented by P. Santos).
- Bannan, B.** & Cook, J. (2013, September 24-26). *Putting the design back in design-based research: Problem seeking and scaling insights from mobile learning* [Conference presentation]. University of Georgia Design-based Research Conference. Athens, GA.
<http://dbrxroads.coe.uga.edu/dbrvideos.html>
- *Martínez-Álvarez, P., & **Bannan, B.** (2013, May 29-June 2). *Blending practices: DBR and CALL to enrich emergent bilingual learners' concept and language development* [Paper presentation]. The Computer-Assisted Language Instruction Consortium (CALICO). University of Hawaii, Manoa.
- *Saville, J., & **Bannan, B.** (2013, March 6-8). *Development of an augmented reality experience through design research* [Conference presentation]. New Learning Technologies SALT Conference. Orlando, FL.
- Bannan, B.** (2013, January 28-30). *Toward Investigating Ubiquitous, Pervasive and Seamless Computing and Learning* [Conference presentation]. Alpine Rendez-Vous, STELLAR Network of Excellence on Technology Enhanced Learning, Villard-de-Lans, Vercors, France.
- Bannan, B.** (2012, September 11-13). *Transforming Learning Technologists into Design Researchers* [Conference presentation]. Association for Learning Technologies (ALT), University of Manchester, Manchester, United Kingdom.
- *Zgheib, G., **Bannan, B.**, Bella, C., Mujeebu, F. and Levy, P. (2012, June 24-27). *Augmented reality mobile application game to teach middle schoolers history* [Conference presentation]. International Society for Technology in Education (ISTE) Conference, San Diego, CA.
- Kelly, A.E., *Baek, J. & **Bannan, B.** (2012, April 13-17). *New approaches to validity judgments for emergent research methods* [Conference presentation]. Annual Conference of the American Educational Research Association, Vancouver, Canada.
- Bannan, B.** (2011, April 8-12). *Pedagogically-oriented mobile learning research: The case of design research: A framework and examples* [Conference presentation]. Annual Conference of the American Educational Research Association, New Orleans, LA.
- Bannan, B.**, & Kelly, A. E. (2010, April 30-May 4). *Cyberinfrastructure and Cyber-enabled Learning: What does it mean for education?* [Conference presentation]. Annual Meeting of the American Association for Educational Research, Denver, CO.
- Bannan, B.**, *Peters, E., *Martinez, P. and Blanchard, J. (2010, March 11-12). *Using mobile technologies in science with smart kids who learn differently* [Conference presentation]. Diamonds in the Rough Smart Kids Who Learn Differently: The National Conference for Educators, Parents, Students and all who appreciate the unique strengths and needs of bright kids who learn differently. University of Maryland, Rockville, MD.

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- Bannan, B., *Peters, E. and *Martinez, P.** (2009, October 26-30). *GO Inquire: Exploring Mobile learning and geological observational inquiry with elementary students* [Conference presentation]. mLearn: The 8th World Conference on Mobile and Contextual Learning, Orlando, FL.
- Bannan, B.** (2009, November 30). *Challenges for integrative design and research in mobile learning. Technology-enhanced learning in the context of technological, societal and cultural transformation* [Conference Presentation]. Alpine Rendez-Vous, STELLAR Network of Excellence by the Ludwig-Maximilians-Universitat Munich and London Mobile Learning Group. Garmisch-Partenkirchen, Germany.
- *Martinez, P., **Bannan-Ritland, B.** & *Baek, J. (2008, April 24-28). *Upper elementary children's misconceptions in relation to slow changes caused by water* [Conference presentation]. Annual Meeting of the American Educational Research Association, New Orleans, LA.
- *Martinez, P., **Bannan-Ritland, B.**, Kitsantas, A. & *Baek, J. (2007, March). *The impact of an Integrated Science Reading Intervention on Elementary Children's Misconceptions regarding slow geomorphological changes caused by water* [Conference presentation]. Annual Meeting of the National Association for Research in Science Teaching, Chicago, IL.
- Bannan-Ritland, B., Baek, J., *Peters, E.E., *Martinez, P., *Qutub, J. & *Xia, Q.** (2006, April 7-11). *Teachers as Collaborators in Design-based Research: Designing a Technology System integrating Inquiry-based Science and Reading Comprehension Strategies* [Conference presentation]. Annual Meeting of the American Educational Research Association. San Francisco, CA.
- *Peters, E.E., **Bannan-Ritland, B., *Baek, J., *Martinez, P., *Qutub, J. & *Xia, Q.** (2006, April). *Design-based research as professional development: Case study of a reading teacher in a science inquiry project* [Conference presentation]. Annual Meeting of the National Association for Research in Science Teaching, San Francisco, CA
- Bannan-Ritland, B., *Han, X. & *Baek, J.** (2005, October). *Literacy activities in science: A cross-case analysis of a fourth and sixth grade teachers' beliefs and implementation of the science-literacy connection* [Conference presentation]. Association for Educational Communications and Technology. Chicago, IL.
- *Qutub, J., & **Bannan-Ritland, B.** (2005, October) *Are realistic or are abstract visual representations more effective tools in technology-based geosciences education?* [Conference presentation]. International Association of Visual Literacy, Orlando, FL.
- *Baek, J., **Bannan-Ritland, B., *Han, X. & *Linn, S.** (2005, April) *Characterizing inquiry teaching through beliefs, time and interactions* [Conference presentation]. National Association of Research in Science Teaching. Dallas, TX.
- Han, X., **Bannan-Ritland, *Baek, J., & *Peters, E.** (2005, April 11-15) *Literacy activities in two fourth grade inquiry science teachers classrooms* [Conference presentation]. American Association for Educational Research. Montreal, Canada.
- Bannan-Ritland, B. & *Baek, J.** (2004, October 19-23). *The Integrative Learning Design Framework: Combining research methods and design processes* [Paper presentation]. Association for Educational Communications and Technology. Chicago, IL.
- Clark, K. & **Bannan-Ritland, B.,** (2004, October 19-23) *Teaching Instructional Design using the Immersion Method: An evaluation examination of competencies, skills and experiences*

[Conference presentation]. Annual Meeting of the Association of Educational Communications and Technology, Chicago, IL.

Bannan-Ritland, B. (2002, April) *Computer-mediated communication (CMC), e-learning and Interactivity: A Review of the Research* [Conference presentation]. E-Learning: Corporate, Government & Higher Education Learning Solutions Conference & Expo, Washington, DC

Bannan-Ritland, B., Castellani, J. & Behrman, M. (2001, April) *Teamwork: A critical component to collective problem solving and achievement of instructional design teams involved in authentic projects* [Conference presentation]. American Educational Research Association, Seattle, WA.

Clark, K., **Bannan-Ritland, B. & Crook, J.** (2001, November 7-10) *Instructional Design through the Immersion Approach: Linking Theory to Practice* [Conference presentation]. Association for Educational Communications & Technology, Atlanta, GA.

Bannan-Ritland, B., Castellani, J. & Behrman, M. (2000, April 24-28). *The immersion approach: Teaching novice instructional designers based on action learning principles* [Conference presentation]. American Educational Research Association, New Orleans, LA.

Dabbagh, N. & **Bannan-Ritland, B.** (2000, November 3-5). *Redesigning instructional strategies for online learning* [Conference presentation]. Presented at the Sixth International Conference on Asynchronous Learning Networks (ALN), University of Maryland University College, Adelphi, Maryland.

Dabbagh, N. & **Bannan-Ritland, B.** (2000, October). *Connecting web features and instructional strategies through the implementation of generative synthesis and knowledge representation* [Conference presentation]. Association for Educational Communications and Technology (AECT) annual conference, Denver, Colorado.

Bannan-Ritland, B. & Kenworthy, N. (2000, October) *Learning objects and learning databases* [Conference presentation]. Association for Educational Communications & Technology, Denver, CO.

Bannan-Ritland, B., & Dabbagh, N. (2000, February). *Creation of a web knowledge base to support teaching and learning of instructional design* [Conference presentation]. Association for Educational Communications and Technology (AECT) annual conference, Long Beach, California.

Bannan-Ritland, B. (2000, February) *Evolution of Web-based -instruction: Connecting technical attributes to conceptual bases* [Conference presentation]. Association for Educational Communications & Technology, Long Beach, CA.

Hill, J., **Bannan-Ritland, B., Dabbagh, N., & Land, S.** (2000, February). *Stories from the trenches: Creating web-based instruction* [Conference presentation]. Association for Educational Communications and Technology (AECT) annual conference, Long Beach, California.

Dabbagh, N. & **Bannan-Ritland, B.** (1999, December) *Best Practices: Online Content Management Incorporating Instructional Design* [Conference presentation]. Blackboard Learning '99: Evolution of Online Learning, Washington, DC.

Bannan-Ritland, B. (1999, October) *Teaching Instructional Design: An Action Learning Framework* [Paper presentation]. ITFORUM listserv for instructional design theorists and practitioners. Delivered virtually.

Bannan-Ritland, B. (1999, June 19-24) *A knowledge management and electronic infrastructure approach to teaching instructional design* [Conference presentation]. Ed-Media World

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- Conference on Educational Multimedia, Hypermedia and Telecommunications Conference, Seattle Washington.
- Dabbagh, N., **Bannan**-Ritland, B., & Silc, K. (1999, June 19-24). *Web-based course authoring tools: Pedagogical implications* [Conference presentation]. EdMedia World Conference on Educational Multimedia, Hypermedia & Telecommunications, Seattle, Washington.
- Bannan**-Ritland, B. (1998, June 20-25). *Theoretical Perspectives on Web-Based Instruction* [Conference presentation] [Conference presentation]. Ed-Media & Ed-Telecomm World Conference on Educational Multimedia and Hypermedia & World Conference on Educational Telecommunications, Freiberg, Germany.
- Avegghli, B., Spikell, M., **Bannan**-Ritland, B. and Egerton, E. (April, 1998). *Math Manipulatives and the Web: A Powerful Combination* [Conference presentation]. Annual Meeting National Council Teachers of Mathematics, Washington, DC.
- Spikell, M., Avegghli, B., **Bannan**-Ritland, B. and Egerton, E. (1998, March 10-14). *Virtual math manipulatives: An innovative Web-based instructional strategy* [Conference Presentation]. Society for Information Technology and Teacher Education, Washington, DC.
- Bannan**-Ritland, B., Dede, C., Salzman, M, Ash, K. and Loftin, B. (1998, February). *Virtual Reality: Design Considerations for Three-Dimensional Immersive Constructivist Learning Environments* [Conference presentation]. Association for Educational Communications and Technology, St. Lois, MO.
- Milheim, W.D., **Bannan**, B. & Harvey, D. (1997, February). *A framework for delivering instruction on the World Wide Web* [Conference presentation]. Association for Educational Communications and Technology, Albuquerque, NM.
- Bannan**, B. & Grabowski, B.L. (1996, October). *Visual manipulation and organizational strategies in computer-based instruction* [Conference presentation]. Association for Educational Communications and Technology Conference, Indianapolis, IN.
- Bannan**, B. & Milheim, W.D. (1996, October 15-19). *Design, development and delivery of instructional materials over the Internet* [Conference presentation]. WebNet:World Conference of the Web Society, San Francisco, CA.
- Bannan**, B. (1996, March). *Teaching instructional technology: Implementing a constructivist approach* [Conference presentation]. Thirteenth International Conference on Technology and Education, New Orleans, LO.
- Bannan**, B. (1996, February). *Visual Organizational and Manipulation Strategies in computer-based instruction* [Conference presentation]. Association for Educational Communications and Technology, Indianapolis, IN.
- Spotts, J.D., Getty, V.M., [Haag] **Bannan**, B., Samouilova, M.A., & Achterberg, C. (1995, June). *From land to landfill: A systems perspective - an interdisciplinary multimedia curriculum for middle school* [Conference presentation]. National Educational Computing Conference, Baltimore, MD.
- Jonassen, D. H., Campbell, J. & [Haag] **Bannan**, B. (1995, February). *Toward a design model for designing constructivist learning environments* [Conference presentation]. Association for Educational Communications and Technology, Anahiem, CA.

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- Milheim, W.D., [Haag] **Bannan, B.**, Campbell, J., Nichols, P. & Roberts, T. (1995, February). *Authoring systems: An introduction to the technology and selection methods* [Conference presentation]. Association for Educational Communications and Technology, Anahiem, CA.
- Snetsinger, W. & [Haag] **Bannan, B.** (1994, October). *A step further-- the inclusion of aesthetic principles in screen design to enhance learning* [Conference presentation]. International Visual Literacy Association, Tempe, Arizona.
- Bannan, B.** & Grabowski, B.L. (1994, September). *The effects of varied visual manipulation strategies within computer-based instruction on factual, conceptual and problem-solving learning* [Conference presentation]. Association for Educational Communications and Technology Conference, Nashville, TN.
- [Haag] **Bannan, B.**, & Samouilova, M. (1994, March). *A visual, organizational and generative instructional strategy: Research results and potential for the development of computer-based instruction* [Conference presentation]. 11th International Conference on Technology and Education, London, England.
- Samouilova, M. A., & [Haag] **Bannan, B.** (1994, March). *Multimedia applications for foreign language instruction: Current state and future potential* [Conference presentation]. 11th International Conference on Technology and Education, London, England.
- [Haag] **Bannan, B.** (1994, March). *Compact disc-interactive* [Workshop presentation]. Workshop at the Conference on Innovation and Technology in Education, University Park, PA.
- [Haag] **Bannan, B.**, & Grabowski, B. L., (1994, February). *The effects of varied visual organizational strategies within computer-based instruction on factual, conceptual and problem-solving learning* [Conference presentation]. Association for Educational Communications and Technology, Nashville, TN.
- [Haag] **Bannan, B.**, & Snetsinger, W. (1993, October). *Screen design and visual arts: The integration of two field's research and guidelines to enhance computer-based instruction* [Conference presentation]. International Visual Literacy Association, Rochester, NY.
- Bailey, H. J., Milheim, W. D., & [Haag] **Bannan, B.** (1992, February). *An innovative design for group-based interactive video in nursing education* [Conference presentation]. Association for Educational Communications and Technology, Washington, DC.
- Milheim, W. D., [Haag] **Bannan, B.**, & Nichols, P. (1991, November). *Authoring options for developing computer-based interactive video programs* [Conference presentation]. Association for the Development of Computer-Based Instructional Systems, St. Louis, MO.
- McDonough, S., & [Haag] **Bannan, B.** (1990, [Conference presentation]). *An introduction to interactive technology* [Conference presentation]. New School of Social Research, New York, NY.

STATE/REGIONAL REFEREED PRESENTATIONS

(* denotes student)

- Bannan, B.** (2018, March). *User Experience Design and Distributed Complex Learning Environments* [Conference presentation]. The Maryland Distance Learning Association, Linthicum, MD.
- Bannan, B.** (2013, December). *Educating the next generation of UX designers for learning technologies* [Conference presentation]. MoDev East 2013, McLean, VA.
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LOCAL PRESENTATIONS AND WORKSHOPS

(* denotes student)

- Bannan, B.** (2020, March). *Designing Smart Sensors to Improve First Responders' Response Time* [Invited presentation]. Galileo Science Café, George Mason University, Manassas, VA.
- Purohit, H. and **Bannan, B.** (November, 2019). *AI-augmented Learning Analytics for Emergency Response Training* [Invited presentation]. George Mason University, Fairfax, VA.
- Bannan, B.**, Peixoto, N., Baldwin, C., Purohit, H., Zaccaro, S., Dubrow, S., Nik, H.G., & Rajagopal, A.A. (2017, April). *Engineering multiteam systems training for smart medical and emergency response* [Invited presentation]. George Mason University Healthcare Symposium. Fairfax, VA.
- Dubrow, S., Battista, A., Sanko, J. **Bannan, B.** & Peixoto, N. (2017, April). *Communication in interprofessional multiteam systems during patient handoff: A case study* [Invited presentation]. George Mason University Healthcare Symposium. Fairfax, VA.
- Bannan, B.** & Segall, J. (2016, March 23). *Design of SMART emergency medical teams* [Invited presentation]. DC-Internet Of Things Meet-Up Group. Alexandria, VA.
- Bannan, B.**, Ortel, J. & Dunham, M. (2012, June). *Enculturating innovation: Changes in design process and identity as perceived by instructional designers after graduate study* [Symposium]. ELearning Symposium, George Mason University Fairfax, VA.
- Bannan, B.** & Kelly, A.E. (2009, May). *Modeling cyber-enabled learning and teaching: Addressing methodological and measurement issues* [Symposium]. Facilitation of second panel meeting NSF grant, George Mason University, Fairfax, VA
- Kelly, A.E. & **Bannan, B.** (2008, December). *Cyberinfrastructure and Cyber-enabled Learning* [Symposium]. Facilitation of first panel meeting NSF grant, George Mason University, Fairfax, VA.
- Dabbagh, N. & **Bannan-Ritland, B.** (2001, February). *The instructional design and development track at GMU* [Invited presentation]. Presented to the board of directors of the Century Club of George Mason University, Fairfax, Virginia.

GRANTS**FUNDED GRANTS AND RESEARCH AWARDS — \$2,034,386 (since 2003) and \$2,559,886 total overall funding**

- Lattanzi, D., **Bannan** (Co-Principal Investigator), B., Dunaway, M. & McCallum, S. (in preparation). *Center for Human Machine Integration in Public Safety* [Grant]. National Science Foundation Industry-University Cooperative Research Center Program. Submit in December, 2020.
- Dailey, S., Laskey, K., Ramsdell, J. & **Bannan, B.** (Co-Principal Investigator) (submitted). *Law Enforcement Use of Force SIMEX (\$65,375). MITRE Corporation* [Grant]. Submitted in October, 2020, \$65,375 over 1 year.
- Kelly, A.E., **Bannan, B.** (Co-Principal Investigator), Kitsantas, A., Wang, S. & Yu, L.P. (submitted) *Educating the Skilled Technical Workforce for STEM Career Advancement Using a Networked Augmented Reality System* [Grant]. (\$500,000 over 3 years), National Science Foundation EHR Core Research (ECR). Submitted in September, 2020, \$5000 over 3 years.

Laskey, K., Dailey, S. & **Bannan**, B. (Co-Principal Investigator). (2020). *MITRE SIMEX* [Grant]. MITRE Corporation. Awarded \$40,350 over 4 months.

Bannan, B. (Principal Investigator) (2019-2020). *Research Team Commercial First Innovation TM a.k.a. Smart Community IoT Innovation (SCITI Labs)* [Contract], Center for Innovative Technology. Awarded \$200,927

Shehu, A., Lattanzi, D. & **Bannan**, B. (Co-Principal Investigator), (2019-2024). *The Center for Advancing Human-Machine Partnerships* [Grant]. George Mason University Provost Transdisciplinary Research Award Funding. Awarded \$625,000

Laskey, K., Dailey, S. & **Bannan**, B. (Co-Principal Investigator), (2019). *MITRE SIMEX* [Grant]. MITRE Corporation. Awarded \$49,966

Bannan, B. (Principal Investigator) (2018). *Smart city learning solutions – advancing research and development* [Grant]. College of Education and Human Development SEED Grant Research Funding. Awarded \$10,000

Bannan, B. (Co-Principle Investigator) & Peixoto, N. (2016 - 2018). *Engineering networked devices for multiteam learning and performance* [Grant]. NSF EAGER Program. Awarded \$199,962

Bannan, B., (Co-Principle Investigator) Peixoto, N. & Baldwin, C. (2015). *Engineering Networked Tracking Devices for Smart Medical and Emergency Response Training* [Grant]. Multidisciplinary Research Grant program Office of the Provost George Mason University. Awarded \$50,000

Kelly, A.E. & **Bannan**-Ritland, B. (Co-Principle Investigator) (2008-2010). *Modeling Cyber-Enabled Learning and Teaching: Addressing Methodological and Measurement Issues* [Grant]. National Science Foundation Cyberlearning Program. Awarded \$199,000

Bannan-Ritland, B. (Principle Investigator) (2007). *Career Award International Research Supplement*. National Science Foundation Career Program. Awarded \$30,000

Bannan-Ritland, B. (Principle Investigator) (2004). *Career Award Research Experiences for Undergraduates (REU)-Justification for Supplement* [Grant]. National Science Foundation. Awarded \$12,000

Bannan-Ritland, B (Principle Investigator) (2003-2008) *Comprehension Strategy Support in Inquiry-based Science* [Grant]. National Science Foundation CAREER program. Awarded \$617,181

Bannan-Ritland, B. (Co-Principle Investigator) (2001) *TTAC Online Community Development. Subcontract on the Technical Training Assistance Center (TTAC)* [Subcontract]. Virginia Department of Education (part of \$1M Contract Award Funded to Michael Behrmann in August, 2002). Awarded \$120,000.

Bannan-Ritland, B. (Co-Principle Investigator) (2000) *TTAC Online Community Development. Subcontract on the Technical Training Assistance Center (TTAC)* [Subcontract]. Virginia Department of Education (part of \$1M Contract Award Funded to Michael Behrmann in June, 2000). Awarded \$120,000.

- Berhmann, M., Takemoto, C. & **Bannan**-Ritland, B. (Co-Principle Investigator) (1998). *Literacy Access Online*. Steppingstones of Technology Innovation for Students with Disabilities Program – U.S. Department of Education. Awarded \$200,000
- Berhmann, M., Goltz, D. & **Bannan**-Ritland, B. (Co-Principle Investigator) (1998). *Department of Defense Project Instructional Design Team: Immersion program*. Proposal to C2 Multimedia Inc. Awarded \$80,000
- Bannan**-Ritland, B. (Principle Investigator) (1998). *Connecting Theory to Practice: New Methods of Teaching Instructional Design*. Celebration of Learning small grants program by Office of the Provost (**\$2000**), George Mason University. Awarded \$2000
- Bannan**, B. (Principle Investigator) (1996). *Web-based instructional strategies: New Methods Based on Learning Theory*. Faculty Summer Research Funding, George Mason University. Awarded \$3500

CONSULTANT - FUNDED GRANTS

- Lee, J., Dunaway, M., Jones, M., Maynard, K., & Wells, A. (submitted) Foundational Research for a “Whole Community Approach to Public Health and Safety” Based on University Planning and Response to COVID-19. Proposal to the SCC-CIVIC program –National Science Foundation. Submitted in August, 2020. Serve as senior personnel.
- Esmaeili, B. (submitted) CAREER: Worker-Machine Teaming to Improve Safety in the Construction Industry. Proposal to the CAREER program –National Science Foundation. Submitted in July, 2020. Serve as senior personnel.
- Peters-Burton, E. (2018) Fostering Student Computational Thinking with Self-Regulated Learning. Proposal to the DRK-12 program –National Science Foundation. Funded in October, 2016. Serve as senior personnel and consultant on design research methods.
- Orrill, C. (2017) Proportions playground: A dynamic world to support teachers’ proportional reasoning. Proposal to the DRK-12 program –National Science Foundation. Funded in October, 2016. Serve as advisory board and consultant on design research methods.
- Bernstein, D. Puttick, G. & Wendell (2017). Robotics Realized: Researching the Design and Implementation of a biomimicry and engineering design curriculum and its influence on the learning and career readiness of middle school students. TERC Proposal to the National Science Foundation. Serve as advisory board member.
- Ault, M. (2010) Evidence Games Project. Proposal to the DRK-12 program –National Science Foundation. Funded in July, 2010. Serve as advisory board membe.
- Berhmann, M. (1998) Literacy Access Online. Proposal to the Steppingstones of Technology Innovation for Students with Disabilities Program – U.S. Department of Education (\$400,000 over two years). Funded in Sept, 1998. Served as senior personnel, directed graduate student team in design and development of Web-based system.
- Loftin, B. & Dede,C. (1996-97) Evaluating the Applications of Virtual Realities in Science Education. Proposal to the National Science Foundation (GMU’s share is about \$750,000). Funded in May,

1996. Served as Co-PI while Dr. Dede was serving at the National Science Foundation, served as an instructional design consultant on the development of virtual worlds.

UNSUPPORTED GRANTS

Esmaeili, B., Rangwala, H. Pathak, P., & **Bannan**, B. (Co-Principle Investigator) (2020) *FMSG: Worker-in-the-loop Cyber-physical Systems for Offsite Manufacturing in the Construction Industry –Future of Manufacturing Program* [Grant] (\$500,000). National Science Foundation. Submitted in June, 2020.

Lattanzi, D., **Bannan**, B. (Co-Principle Investigator), Chung, Y. & Yu, L.F. (2020). *NSF Convergence Accelerator – Track D: Building a Network of Human-in-the-Loop Digital Twins of Civil Infrastructure* [Grant]. Letter of Intent submitted to the National Science Foundation Convergence Accelerator Program. Submitted in May 2020.

Esmaeili, B., Yu, L.P., Peterson, M. & **Bannan**, B. (Co-Principle Investigator) (2020). *FW-HTF-RM: Training Future Construction Workers by Integrating Adaptive VR Training with Non-Invasive Measures* [Grant] (\$1,301,115). National Science Foundation Future of Work Program. Submitted in March 2020.

Fisher-Maltese, C., Gilbert, A., Sprague, D., Park, J., **Bannan**, B., (Co-Principle Investigator) Purohit, H. & Gring-Pemble, L. (2020). *Advanced Technologies for Building Environmental Engagement and Stewardship (Smart BEES)* [Grant]. Proposal submitted to Department of Defense in February, 2020.

Bannan, B. (Principle Investigator), Kelly, A.E.. & Purohit, H. (drafted, but not submitted due to data licensing issues, 2019). *SCC-IRG Track 1: Designing and Building Resilient Spaces through Intelligent and Adaptive Wayfinding Technologies for and with Individuals with Disabilities* [Grant]. National Science Foundation to Smart & Connected Communities Program.

Yu, L.F. & **Bannan**, B. (Co-Principle Investigator) (2019). *Collaborative Research: CHS Medium: A Remotely-Connected VR Platform for Authoring Adaptive Natural Disaster Training Scenarios.* NSF CHS Medium Program (\$591,697).

Bannan, B. (Principle Investigator), Motti, V., Purohit, H. & Zaccaro, S. (2018). *DCL: Synthesis and Design Workshop: Toward Next Generation Learning Environments for Smart & Connected Communities - Convergent and Complex Systems Thinking in Real World Contexts* [Grant] (\$99,000) Proposal submitted to Division of Research in Learning (DRL). Submitted in September, 2018. Serve as co-principal investigator.

Rangwala, H., **Bannan**, B., (Co-Principle Investigator) Purohit, H., Zaccaro, S., & Motti, V. (2018). *WATCH: Wearable analytics and technology for community health center* [Grant] (\$250,000). GMU Transdisciplinary Center for Advance Study Proposal. Submitted in May, 2018.

Bannan, B., Purohit, H., Zaccaro, S., & Motti, V. (2018). *Dear Colleague Letter: Synthesis and design workshops: Toward next generation learning environments for smart & connected communities – convergent and complex systems thinking in real world contexts* [Grant] (\$99,995). National Science Foundation Smart & Connected Communities Track 2 Pre-proposal. Submitted in January, 2018.

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- Hollincheck, N., Baker, C., **Bannan**, B. (Co-Principle Investigator), Davis, S., Dodman, S., Edwards, C., Fox, R., Gilbert, A. (2018). *STEM+C Educator Corps: Engaging with teachers, teacher educators and curriculum to integrate data science and computational thinking in K-8 STEM Education* [Grant] (\$6,000,000). NSF STEM+C Partnerships Program. Submitted in May, 2018.
- Bannan**, B., (Co-Principle Investigator) Peixoto, N., Zaccarro, S., Purohit, H. & Dunaway, W.M. (2017). *Smart situational awareness analytics for multiteam coordination during disaster response and recovery* [Grant] (\$900,00). NSF Smart & Connected Communities Track 2 Pre-proposal. Submitted in November, 2016.
- Purohit, H., Dubey, A., Biswas, G. & **Bannan**, B. (Co-Principle Investigator) (2017). *Building smart situational awareness systems using integrated semantic concept graphs* [Grant]. NSF Small III. Submitted in October, 2016.
- Purohit, H. Rangwala & **Bannan**, B. (Co-Principle Investigator) (2017). *NIST: PCExplorer: Integrated analytics platform for physical and citizen sensor data to improve operations training of emergency responders* [Grant] (\$684,583). National Institutes for Standards and Technology in February, 2017.
- Dunaway, M., Phool, T., Lacey, M., Namuduri, K.R. & **Bannan**, B. (Co-Principle Investigator) (2016). *Smart Connected Communities Planning: Research Collaboration in Public Safety and Sustainability for Smart and Connected Communities* [Subcontract]. NIMSAT Institute, University of Louisiana at Lafayette. Serve as principle investigator for sub-contract to GMU (\$3,990).
- Purohit, H., Rangwala, H. & **Bannan**, B. (Co-Principle Investigator) (2016). *Integrating physical and citizen sensor data for improving operational training of emergency responders* [Grant] (\$50,000). GMU Provost Multidisciplinary Research Initiative. Submitted in April, 2016.
- Bannan**, B., (Principle Investigator) Baldwin, C., Peixoto, N. & Piscitani, F. (2015). *Transforming the simulation process and debrief: A sensor-based cognitive support system for improving medical team training* [Grant] (\$1,964,778 over 4 years). NSF/NIH Smart Connected Health. Submitted in December, 2015.
- Johri, A., **Bannan**, B. (Co-Principle Investigator), Purohit, H. & Reagle, C.J. (2015). *Online maker communities as catalysts for blended pathways to innovative learning* [Grant] (\$299,922). NSF - EAGER:MAKER Program. Submitted December, 2015.
- Gallagher, P.S., **Bannan**, B. (Co-Principle Investigator) & Blake-Plock, S. (2015). *Iterative revision of a novel interoperable networking and application system for learning analytics and medical simulation training* [Grant] (\$299,559). US Ignite EAGER program. Submitted January 2015.
- Bannan**, B. (Principle Investigator) (2011). *Mobile Augmented Reality and Design Research: A Shift for Learning and Research*. [Grant] (\$50,000). AERA Research Conference Initiative. Submitted in March, 2011.
- Kelly, A.E. & **Bannan**-Ritland, B. (Co-Principle Investigator) (2005). *Receptivity to Trialing and Sustained Usage: Instrumentation to Inform Sustained Teacher Use and Scaling of a*

Scientificallly-based Diagnostic Learning Environment. Interagency Education Research Initiative (IERI). (\$997,000)

Behrmann, M. & **Bannan**-Ritland, B. (Co-Principle Investigator) (2002). *Voice-based Mentoring*. American Institute of Research National Science Foundation (GMU's share would be \$2,233,437.00 over five years). Submitted in April, 2002.

Bannan-Ritland, B (Principle Investigator) (2001). *Understanding Teachers Knowledge, Beliefs and Use of Cognitive Diagnostic Formative Assessment in Middle School Mathematics*. National Science Foundation ROLE program. (\$1.3 million). Submitted in June, 2001.

Bannan-Ritland, B., (Co-Principle Investigator) Takemoto, C. & Behrmann, M. (2001). *LiteracyAccess Online Phase III* [Grant]. Proposal to the Steppingstones of Technology Innovation for Students with Disabilities Program – U.S. Department of Education. (\$300,000). Submitted in December, 2001.

DeWitt-Heffner, J., Oxenford, C. & **Bannan**-Ritland, B. (Co-Principle Investigator) (2001). *Cyber Ethics Online Web site Design and Development* [Grant]. Fund for Improvement of Post-secondary Education. GMU's share (\$150,000). Submitted in January, 2001.

Hamburger, H., Tecuci, G., Boehm-Davis, D., Ford, M., Slayden, S. & **Bannan**, B. (1997) *Educational Agents: An Exploration of Human-Computer Learning and Tutoring* [Grant]. Proposal to the National Science Foundation. Amount: (\$1,484,312.). Serve as co-project investigator.

CONSULTANT - UNSUPPORTED GRANTS

Kelly, A.E. (2020) *AI Institute: Planning: Building Communities and Capacity to Support Augmented Learning for Persons with Developmental Disabilities in the STEM Workforce Proposal to the National Science Foundation* (\$ 498,982 over two years). Submitted in May 2020. Serve as senior personnel.

Auffret, J.P. (2020). *AI Institute: National Institute for Trustworthy AI (NITA). Proposal to the National Science Foundation* (\$ 2,809,314). Submitted in May 2020. Serve as senior personnel.

Jensen, L. (2020) *Adaptable R2 Ecosystem. Proposal to the Economic Development Agency Office of Innovation and Entrepreneurship Accelerate R2 Network Challenge*. Submitted in January, 2020. Serve as senior personnel.

Rangwala, H. & Kauffman, C. (2016). *REU Site: Undergraduate research in educational data mining and visualization*. NSF REU program. Submitted November, 2015. Serve as consultant.

Dunaway, M. (2017) *NIST Research Project to Develop the Next Generation Business Emergency Operations Center (NextGen BEOC)*. NIMSAT Institute, University of Louisiana at Lafayette. Serve as Consultant.

Martinez, P. & Howard, E. (2015) *Effects of Multimedia-enhanced Instruction with Co-construction of Knowledge in Language Learners' Content and Vocabulary Knowledge, and Reading Comprehension*. Proposal to the DRK-12 program –National Science Foundation. Serve as senior advisor on design research methods.

SCHOLARLY AWARDS AND HONORS

- 2019 *Best Poster*, Award presented at the 2019 National Science Foundation Synthesis and Design Workshop: Digitally-Mediated Team Learning,” National Science Foundation (NSF) Project 1825007, September 24, 2019, Orlando, Florida.
- 2019 *Nomination, Presidential Award for Faculty Excellence, Excellence in Research and Scholarship*, George Mason University.
- 2015 *First Place, Design Challenge – Envisioning Wearable Learning* at the Special Interest Group on Wearable Enhanced Learning (SIG-WELL) at the European Conference on Technology Enhanced Learning (EC-TEL), Toledo, Spain
- 2015 *Nomination, Best Paper – Embedding cyber-physical systems for assessing performance in training simulations* at the Interservice/Industry Training, Simulation and Education Conference (IITSEC). Orlando, FL.
- 2015 *Learning! 100 Award*, awarded to the Division of Learning Technologies by Elearning Media Group of Elearning! Magazine, June 2015, Manassas, Virginia.
- 2014 *Learning! 100 Award*, awarded to the Division of Learning Technologies by Elearning Media Group of Elearning! Magazine, August 2014, Anaheim, California.
- 2012 *Best Pecha Kucha Presentation Award – Transforming Learning Technologists into Design Researchers* at the Association for Learning Technologies (ALT), University of Manchester, Manchester, United Kingdom. *September 11-13, 2012*
- 2007 *Best Use of Technology Second Place Award, LiteracyAccess Online*, George Mason University Innovation: Celebration of Learning Competition (Faculty supervisor of Instructional Design Project).
- 2002 *Nomination: Teaching Excellence Award*, George Mason University.
- 2001 *Best Use of Technology First Place Award, TTAC Online*, George Mason University Innovation: Celebration of Learning Competition (Faculty supervisor of Instructional Design Project).
- 2000 *Best Use of Technology First Place Award, Department of Defense Senior Executive Service Orientation Supplement*, George Mason University Innovation: Celebration of Learning Competition (Faculty supervisor of Instructional Design Project).
- 2000 *Best Use of Technology First Place Award, LiteracyAccess Online*, Century Club’s IT Student Project Showcase (Faculty supervisor of Instructional Design Project).
- 1999 *Nomination: Teaching Excellence Award*, George Mason University.
- 1999 *Nomination: Millman Promising Scholar Award*, Cornell University.
- 1995 *Paul Welliver Outstanding Graduate Student Award*, Pennsylvania Association for Educational Communications and Technology.
- 1995 *AECT Memorial Scholarship Award*, Association for Educational Communications and Technology.
- 1994 *Constance Dortha Weinman Scholarship Trust for Graduate Student in Instructional Technology Award*. The Pennsylvania State University, University Park, Pennsylvania.

1993 *Phi Delta Kappa*, Inducted at The Pennsylvania State University.

ACADEMIC AND COMMUNITY SERVICE

SERVICE TO THE FIELD

(+ denotes leadership role)

International Organizations and Associations

- +European Conference on Technology Enhanced Learning (EC-TEL)
Submission Reviewer, 2020 WELL4SD Wearable Enhanced Learning in support of Sustainable Development
- +HCI International (HCII)
Board Member, 2020- present Adaptive Instructional Systems (AIS)
- Immersive Learning Research Network Conference (iLRN)
Program Committee, 2017-2019 Special Track on Wearable Enhanced Learning
- IEEE IC Industry on Learning Engineering (ICICLE)
Participant and Entity Member, 2018- present
- IEEE P1589 Augmented Reality Learning Experience Model (ARLEM) Working Group
Participant, 2017
- European Association of Technology Enhanced Learning (EATEL)
Member, 2015- Special Interest Group on Wearable Enhanced Learning (SIG WELL)
- +International Forum on Education and Technology, 2014Univeritat Rovira I Virgili Tarragona, Spain.
International Advisor for Catalonia, Spain - Strategic Plan for Educational Technology, 2014
- +International Conference on Computers in Education (ICCE)
Program Committee, 2014-2015 Classroom, Ubiquitous and Mobile Technology-Enhanced Learning (CUMTEL) Sub-Conference
- +European Conference on Technology Enhanced Learning (EC-TEL)
Chair/Reviewer, 2013 SNaP!ing PBL Design Narratives and Patterns of Problem/Problem-based Learning
- +Association for Learning Technologies (ALT)
Elected Research Committee Member, 2011-2013 Appointed to the United Kingdom's leading organization in the learning technologies field; ALT Research Operational Committee, 2001-2013; Program Committee Member, ALT Conference, 2012

National Professional Organizations and Associations

- +National Institute for Standards and Technology (NIST)
Co-Chair, 2017 – present; Global City Teams Challenge Public Safety SuperCluster; *Action Cluster*, 2014 – present; *Co-author*, 2020 Global City Teams Challenge Public Safety SuperCluster Progress Report 2018-2019 Special Publication (NIST SP) - 1900-203; *Co-author*, 2019 Blueprint for Smart Public Safety in Connected Communities; *Co-author*, 2017 Blueprint for Smart Public Safety in Connected Communities;
- +National Science Foundation (NSF), *Research Proposal Panel Reviewer (dates redacted)*; Future of Work at the Human-Technology Frontier (FW-HTF); Innovative Technology Experiences for Students and Teachers (ITEST); Cyber-Physical Systems; Advancing Informal STEM Learning;

Advanced Learning Technologies (ALT); Partnerships for International Research and Education (PIRE); Faculty Early Career Development (CAREER); National Science Digital Libraries (NSDL); Research on Learning in Education (ROLE); Cyberlearning (CYBERLEARN).

+Association for Educational Communications and Technology (AECT)

Member, 1991 – present; *Chair*, Division of Instructional Design Outstanding Practice Award, 2013 – present; *Elected Board Member*, Division of Information Systems Computing 1998-2001 and 1993-1997; *Invited Reviewer*, conference proposals Division of Information Systems Computing, 1996-2010; *Invited Reviewer*, Research and Theory Division, 2002; *Invited Reviewer*, Division of Instructional Development, outstanding journal article award, 1993-1995. *Assembly Delegate*, Division of Information Systems Computing, 1993.

+Jeffress Trust Awards Program in Interdisciplinary Research

Reviewer, 2018 A Program of the Thomas F. and Kate Miller Jeffress Memorial Trust

+Brigham Young University Instructional Technology Program

External evaluator, 2010

+Learning Software Design Competition, University of Minnesota

Judge, 2001

+National Internet and Multimedia Training Award

Judge, 1999, Brandon-Hall Training

+National Institute for Mental Health Small Business Research Review

Reviewer, 1997, U.S. Department of Health and Human Services, Small Business Research Grants

State/Regional Organizations and Associations

+Virginia Center for Innovation & Technology (CIT)

Submission Reviewer, 2020 Organizing 4Innovation Program

Smart Communities Virginia/Virginia Smart Communities Working Group

Invited Member, 2017 – present; initially convened by Governor Terry McCaulliffe

Maryland Distance Learning Association

Invited Member, 2018 – present

+Central Pennsylvania Association for Educational Communications and Technology

President, 1995; *President-Elect*, 1994; *Membership Chairperson*, 1993; *Member*, 1992 - 1995

Editorial Boards/Consulting Editor

+2005-2007 Educational Technology Research & Development *Editorial Board*

Ad Hoc Reviewer

2011-present	Educational Technology Research & Development (ETR&D)
2017-present	Journal of Learning Sciences (JLS)
2015-present	Research in Learning Technology (RLT)
2018-present	Information (Open Access Journal)
2014-2017	Interactive Learning Environments
2011-2017	International Journal of Mobile and Blended Learning (IJMBL)
2017	Information Open Journal

2008	The Journal of Educational Computing Research (JECR)
2005	Review of Educational Research (RER)
2005	Journal of Geoscience Education (JGE)
2004	British Journal of Educational Technology (BJET)
2003	Educational Researcher

ADDITIONAL SERVICE TO THE FIELD

Book Reviews

Seamless Learning in the Age of Mobile Connectivity by Wong, Specht & Milrad
Chapter Book Reviewer, 2015

Motivation, Emotion and Cognition: Design Research on Intellectual Growth and Functioning in
Education Settings, Volume II
Book Prospectus Reviewer, 2009

Context Aware Mobile Learning by Traxler & Kulska-Hulme
Book Prospectus Reviewer, 2009

CORPORATE, GOVERNMENT, AND LOCAL SERVICE

Medbiquitous, Johns Hopkins at Mount Washington
*Member, 2015, xAPI Interest Group on Health Professions Education Activities and Human
Performance in Simulations*

Government Mobile Applications Council
Member., 2009-2013

Office of Personnel Management Government Contract
Partner., 2007 with C2 Multimedia, Inc.

U.S. Department of State
*Invited Presenter, 2003 International Visitor Program, Office of International Visitors, Bureau of
Educational and Cultural Affairs, presented e-Learning initiatives to a group of German professors
interested in E-Learning and Vocational Education.*

SERVICE TO THE UNIVERSITY

Committees George Mason University

Institute for Digital InnovAtion Working Group
Working group member, 2020 – present

Protecting and Securing Research Health Data Working Group
Working group member, 2020 – present

Search Committee – Assistant Director, Center for Advancing Human-Machine Partnerships
Search committee member, 2020

NSF Career Panel

Reviewer, 2017 CAREER Award Applications Review

GMU Biotech and Health Sciences Research Symposium Steering Committee
Committee member, 2017

GMU Business Engagement Committee
Committee member, 2017

GMU NSF CAREER Development Program Committee
Panel Member and Mentor, 2017

Health Symposium Steering Committee
CEHD Representative, 2016

+Academic Technology Advisory Council
CEHD Representative, 2011-2013

Department of Instructional Improvement and Instructional Technologies
Advisory Board, 2011-2013

Academic Education Initiative
Committee member, 1997

Potomac Professional Education Consortium
Member, 1997

SERVICE TO THE COLLEGE

***Standing Committees and Appointments – College of Education and Human Development (CEHD),
George Mason University***

Faculty Evaluation Committee (FEC)
Committee member, 2019-present

Dissertation Modification Committee
Committee member, 2017

CEHD Council
Council member, 2016-2018

Tenure-Track Annual Review Committee (TTARC)
Co-Chair, 2013-2014
Member, 2011-2013

PhD Committee
LTDR Representative, 2012-2014
Representative, 2003-2005

Curriculum Committee

LTDR Representative, 2007-2009

Graduate School of Education Nominations Committee
Chair, 2000-2001

Professional Development Team
Chair, 2000-2001
Member, 1998-2000

Ad Hoc Committees and Appointments, CEHD, George Mason University

2019	Member	Search Committee
2016	Member	Search Committee
2016	Co-APC	Academic Program Coordination
2015	Member	Search Committee
2014	Member	Search Committee
2009	Member	Search Committee
2005	Appointed Member	First Tier Tenure Evaluation Committee
1999	Member	Search Committee Member
1998	Member	Search Committee Member
1997	Member	Search Committee Member
2001-present	Affiliate	Mathematics and Science Education Leadership Program
1999-2016	Affiliate	Helen A. Kellar Institute for Human disAbilities

SERVICE TO THE PROGRAM/DIVISION

Instructional Design and Technology Program – CEHD, George Mason University

+2016- 2017	Co-Academic Program Coordinator (APC), Instructional Design & Technology (IDT)
1997- present	Interviewer, Doctoral Student Interviews
2010- 2014	Committee Member, eLearning Symposium Planning
1999	Creator, Development and Submission of Instructional Technology Redesign
1999	Creator, Development and Submission of Certificate and Immersion Program
1999-2005	Coordinator and Contributor, Instructional Design Practitioner and Panel Seminars

SERVICE TO THE STATE/REGIONAL SERVICE

MoDev UX- Mobile Development User Experience Design Conference
Conference Program Committee, 2014-2017

Dissertation Committee Chair (total 7) - George Mason University

Mark A. Johnston – dissertation defense Spring 2004

Dissertation Title: *Object oriented virtual environments as a medium for teacher professional development*

Jonathan Crook – dissertation defense Spring 2003

Dissertation Title: *Interactions among parents with disabilities using email and a new discussion board in a literacy tutoring website.*

Robin Seitz – dissertation defense Spring 2004

Dissertation Title: *Early teen girls as users-designers: A case study of the application of user design and design within approaches and implications for the instructional design (ID) process.*

Patricia Martinez – dissertation defense Spring 2008

Dissertation Title: *Impact of an integrated science and reading intervention (INSCIREAD) on bilingual students' misconceptions and reading comprehension and transferability of strategies.*

Jesse Ortel – dissertation defense Spring 2013

Dissertation Title: *Physical therapists' adoption of the lumbopelvic manipulation clinical prediction rule and lumbopelvic manipulation follow a multi-component training program.*

Joseph DiPietro – dissertation defense Fall, 2013

Dissertation Title: *Leveraging educational design research to develop and refine a blended professional development intervention.*

Michelle Dunham – dissertation defense Spring 2018

Dissertation Title: *A design-based research study of aspiring leaders individual development, self-efficacy and self-directed learning following participation in an autobiographical leadership development program.*

Dissertation Committee Member (total 29) - George Mason University (unless noted by *)

Sara El-Erini – dissertation defense in 1998

William Bragg –dissertation defense in 1999

Tara Jeffs –dissertation defense in Fall 2000

Deborah Bruce –dissertation defense in Spring 2000

Mike Kostrezwa – dissertation defense in Fall 2001

Sharon Widmayer – dissertation defense in Spring 2001

Leslye Fuller – dissertation defense in Spring 2002

Jennie Schaff – dissertation defense in Fall 2002

Monique Lynch –dissertation defense in Fall, 2002

Todd Jameison- dissertation defense in Spring 2003

Yoosun Chung – dissertation defense in Spring 2004

Maxine Thomas – dissertation defense in Fall 2004

*Deb Waddill (George Washington University) – dissertation defense in Fall 2003

Susan Trickett – dissertation defense in Spring 2004
John Staley – dissertation defense in Spring 2005
Jennifer Suh – dissertation defense in Spring 2005
William Warrick – dissertation defense in Spring 2005
Amie Fulcher – dissertation defense in Fall, 2007
John Baek – dissertation defense in Fall, 2007
Erin Peters – dissertation defense in Spring, 2008
Susan Dass – dissertation defense in Fall, 2014
Ghania Zgheib – dissertation defense in Spring 2014
Maha Al-Frieh – dissertation defense Fall 2017
Ahmad Almufarreh – dissertation defense Fall 2018
Boshra Zawawi – dissertation defense in Spring 2019
Hyle Daley – dissertation defense in Summer 2019
Maimoona Al-Abri – dissertation defense in Spring 2020
Samantha Dubrow – projected dissertation defense in Spring 2021 (GMU Industrial and Organizational Psychology)
Kimberlie Fair – proposal defense projected Spring 2021
Leilani Funaki – proposal defense projected Spring 2021

Pre-Dissertation Portfolio Student Program Committee Chair (total 6) - George Mason University

Crystal Clemmons (fall 2020-present)
Chunhua Xiong (fall 2015 – present)
Jason Smith (fall 2017 - spring 2019)
Hyle Daley (fall 2015- 2016, switched PhD specialization to EdPsych)
Jesse Ortel (summer 2010 – summer 2012)
Patty Gilbert (completed portfolio defense, 2001)

Pre-Dissertation Portfolio Student Program Committee Member (total 27) - George Mason University (unless noted by*)

Maurine Kwende (fall 2020 – present)
Teresa Wu – (fall 2020 to present)
Mary Leigh Phillips (fall 2018 – present)
Shea Walters (fall 2018- present)
Adam Strawn (fall 2016-present)
Linda Ensign (fall 2018-present)
Jennifer Whitman (spring 2016-fall 2018)
Maimoona Al-Abri (fall 2015 - spring 2018)
Helen Fake (fall 2013 – fall 2017)
Falah Amro Alsiekh (fall 2012 – fall 2017)
Ahmad Almufarreh (spring 2014 – fall 2017)
Boshra Zawawi (spring 2014 – fall 2017)
Angela Abdian Low (spring 2014 – spring 2015)
Leshell Hatley (spring 2013 – spring 2015)
Joe DiPietro (spring 2011 - spring 2013)
Michelle Dunham (spring 2012 – spring 2014)
Jennifer Saville (fall 2011 – fall 2013)
Susan Moy Whitman (spring 2014 – spring 2016)
Ghania Zgheib (summer 2010 – spring 2013)

Susan Dass (summer 2010- summer 2012)

Susan Conrad (spring 2011- spring 2015)

Jennifer Pic (fall 2011 – spring 2014)

John Baek (spring 2004 -spring 2005)

Lorraine Smith

Wendy Bird

*Komar Khan (Instructional Design for Online Learning – Capella University)

Advising Load – IDT Masters and Certificate Programs - George Mason University

*Accessible Data begins AY 05-06- Fall 05 (2) Spring 06 (2); AY 06-07 - Fall 06 (1) Spring 07 (4); AY 07-08 - Fall 07 (9) Spring 08 (10); AY 08-09 - Fall 08 (19) Spring 09 (17); AY 09-10 - Fall 09 (8) Spring 10 (6); AY 10-11 – Fall 10 (4) Spring 11 (5); AY 11-12- Fall 11 (6) Spring 12 (7); AY 12-13 F12 (8) Spring 13 (12); AY 13-14 –Fall 13(13) Spring 14 (17); AY 14-15 - Fall 14 (14) Spring 15 (13); AY 15-16 - Fall 15 (14) Spring 16 (15); AY 16-17 Fall 16 (19) Spring 17 (19); AY 17-18 Fall 17 (21) Spring 18 (19); AY 18-19 – Fall 18 (18) Spring 19 (15); AY 19-20 – Fall 19 (11) Spring 20 (15) – reflects number of students assigned to me each Fall and Spring term