Elena Novak

Curriculum Vita
February 2019

School of Teaching, Learning and Curriculum Studies, Kent State University
300G White Hall, 150 Terrace Drive, P.O. Box 5190
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PROFESSIONAL PREPARATION

Ph.D., Instructional Systems, April 2012
Educational Psychology and Learning Systems Department, College of Education, Florida State University; Tallahassee, FL
Dissertation: *Effects of an instructional gaming characteristic on learning effectiveness, efficiency, and engagement: Using a storyline to teach basic statistical analytical skills*.

M.A., Economics, May 2005
Tel Aviv University; Tel Aviv, Israel

B.A. Computer Science and Economics, May 2000
Tel Aviv University; Tel Aviv, Israel

PROFESSIONAL CREDENTIALS

Certificate in Human Performance Technology, 2009; Florida State University; Tallahassee, FL

Certificate in Online Instructional Development, 2009; Florida State University; Tallahassee, FL

Certificate in Program Evaluation, 2009; Florida State University; Tallahassee, FL

PROFESSIONAL ACADEMIC EXPERIENCE

Assistant Professor in Instructional/Educational Technology, August 2015 – present
School of Lifespan Development and Educational Sciences/ Teaching, Learning and Curriculum Studies, Kent State University, Kent, OH

Responsible for teaching online graduate courses in educational technology, conducting research, advising Master's and PhD students, updating and revising Master's and PhD curriculum in Educational Technology, and developing an Educational Technology cognate area within an EdD

interdisciplinary program for the College of Education, Health and Human Services at Kent State University.

Visiting Assistant Professor in Instructional Design, August 2012—June 2015
School of Teacher Education, Western Kentucky University, Bowling Green, KY
Responsible for teaching online graduate courses in instructional design and assessment, supervising students' projects, developing courses and Instructional Design program curriculum, conducting research

Instructor, 2007-2011
Department of Modern Languages, Florida State University; Tallahassee, FL

HONORS AND AWARDS (*indicates work conducted with students)

Kent State University – Academic Year Research and Creative Activity Appointment for 2019-2020.

Kent State University – Teaching Scholar (2018-2019).

Grant Reviewer, *National Science Foundation*, (2016, 2018).

Outstanding Reviewer, *Computers & Education*, (2017).

Immersive Learning Award (2nd place), Association for Educational Communications and Technology (AECT), Division of Emerging Learning Technologies, Las Vegas, NV (2016): This international award recognizes designers of immersive learning environments and interventions characterized by high production and instructional qualities: *3D Printing Technology Science Project in a Kent State University Preservice Teacher Science Methods Course* (with Sonya Wisdom).

Featured research at the 2016 Association for Educational Communications and Technology (AECT) International Convention, Invited 1 hour talk, Las Vegas, NV: *Using a mathematical model of Motivation, Volition, and Performance to examine students' e-text learning.* Novak E., McDaniel K., & Daday, J.

2nd place in Education category (2015). Florida Statewide Graduate Student Research Symposium, University of Central Florida, Orlando, FL. (co-authored with graduate students)*

Robert M. Gagne Research Award (2015), the Florida State University College of Education's top research award, Tallahassee, FL (co-authored with graduate students)*

Western Kentucky University Award for continued support of the Kelly Autism Program (2013), Bowling Green, KY

Early Career Symposium participant, Association for Educational Communications and Technology (AECT), National Science Foundation (NSF), 2013, Anaheim, CA

New Faculty Mentoring Program participant, American Educational Research Association (AERA), Division C, Learning & Instruction (2013), San Francisco, CA

Association for Educational Communications and Technology (AECT), Design & Development Showcase Award (2012), Louisville, KY

Nova Southeastern Award for Outstanding Practice by a Graduate Student in Instructional Design (2010), Association for Educational Communications and Technology (AECT), Design and Development Division, Anaheim, CA: This international award recognizes a graduate student who has designed exemplary instructional materials

Ruby Diamond Award: Future Professor Award (2010), Florida State University; Tallahassee, FL

Liliana Muhlman Masoner Award: Outstanding International Student Award (2010) (nomination), Florida State University; Tallahassee, FL

Gagne/Briggs Award: Outstanding Doctoral Student (2010) (nomination), Florida State University; Tallahassee, FL

CORE Scholarship (2009-2011), Florida State University; Tallahassee, FL

Best Graduate Student Poster Award (2009), Annual Florida Educational Research Association (FERA) Conference; Orlando, FL

Dr. T. Grant Brown Endowed Scholarship (2007), Florida State University; Tallahassee, FL

Graduate Research Assistantship (2006-2012), Florida State University; Tallahassee, FL

Graduate Research Assistantship (2000-2001), Tel-Aviv University; Tel Aviv, Israel

Teaching Assistantship (1999-2000), Tel-Aviv University; Tel Aviv, Israel

PUBLICATIONS

Refereed Articles

1. Tassell, J., Novak, E., & Kessler, B. (accepted). Math comic books to the rescue: Can Wonderguy's escapades improve children's mathematics attitudes? *Technology, Instruction, Cognition and Learning.*

2. Tokac, U., Novak, E., & Thompson, C. (2019). Effects of game-based learning on preK-12 students' mathematics achievement: A meta-analysis. *Journal of Computer Assisted Learning.* [2017 impact factor: 1.859]

3. Novak, E., & Wisdom, S. (2018). Effects of 3D printing project-based learning on preservice elementary teachers' science attitudes, science content knowledge, and anxiety about teaching science. *Journal of Technology and Science Education, 27(5),* 412-432. https://doi.org/10.1007/s10956-018-9733-5 . [2016 5-year impact factor: 1.424].

4. Novak, E., Daday, J., & McDaniel, K. (2018b). Using a mathematical model of Motivation, Volition, and Performance to examine students' e-text learning experiences. *Educational Technology Research & Development. 66(5),* 1189-1209. https://doi.org/10.1007/s11423-018-9599-5 . [2016 5-year impact factor: 1.652; acceptance rate: 8%].

5. Novak, E., Daday, J., & McDaniel, K. (2018a). Assessing intrinsic and extraneous complexity of e-text learning. *Interacting with Computers, 30(2),* 150-161. https://doi.org/10.1093/iwc/iwy001 . [2016 5-year impact factor: 2.032, acceptance rate per Cabells: 30%].

6. Novak, E., & Tassell, J. (2017). Studying preservice teacher math anxiety and mathematics performance in geometry, word, and non-word problem solving. *Learning and Individual Differences, 54,* 20-29. https://doi.org/10.1016/j.lindif.2017.01.005 . [2016 5-year impact factor: 2.369; acceptance rate per editor: 25-30%]

7. Novak, E., & Tassell, J. (2015b). Using video game play to improve education-majors' mathematical performance: An experimental study. *Computers in Human Behavior, 53,* 124-130. https://doi.org/10.1016/j.chb.2015.07.001 . [2016 5-year impact factor: 4.252; acceptance rate per Cabells: 30%].

8. Novak, E., & Tassell, J. (2015a). A dataset for education-related majors' performance measures with pre/post video game practice. *British Journal of Educational Technology,* 1-5. https://doi.org/10.1111/bjet.12287 . [2016 5-year impact factor: 2.41; acceptance rate per Cabells: 9%].

9. Novak, E. (2015). A critical review of digital storyline-enhanced learning. *Educational Technology Research & Development, 63(3),* 431-453. http://dx.doi.org/10.1007/s11423-015-9372-y . [2016 5-year impact factor: 1.652; acceptance rate per editor: 8%].

10. Novak, E., & Johnson, T.E. (2015). Design and development of a simulation for testing the effects of instructional gaming characteristics on learning of basic statistical skills. *International Journal of Gaming and Computer-Mediated Simulations, 7*(1), 40-59. http://dx.doi.org/10.4018/IJGCMS.2015010103 . [2016 5-year impact factor: .31; acceptance rate per Cabells: 15%]

11. Novak, E. (2014c). Toward a mathematical model of motivation, volition, and performance. *Computers & Education, 74,* 73-80. https://doi.org/10.1016/j.compedu.2014.01.009 . [2016 5-year impact factor: 5.047; acceptance rate per Cabells: 24%].

12. Novak, E. (2014b). Effects of simulation-based learning on students' statistical factual, conceptual, and application knowledge. *Journal of Computer Assisted Learning, 30(2),* 148-158.

https://doi.org/10.1111/jcal.12027 . [2016 5-year impact factor: 1.253; acceptance rate per Cabells: 22%].

13. Novak, E., Johnson, T. E., Tenenbaum, G., & Shute, V. (2014). Effects of an instructional gaming characteristic on learning effectiveness, efficiency, and engagement: Using a storyline to teach basic statistical skills. *Interactive Learning Environments, 24*(3), 523-538. https://doi.org/10.1080/10494820.2014.881393 . [2016 5-year impact factor: 1.674]

14. Novak, E., Zhao, W., & Reiser, R. (2014). Promoting interdisciplinary research among faculty. *The Journal of Faculty Development*, *28*(1), 1-6. Retrieved from http://www.ingentaconnect.com/content/nfp/jfd/2014/00000028/00000001/art00003
15. Novak, E. (2014a). A dynamically adaptive TutorIT tutorial in basic statistics. *Technology, Instruction, Cognition and Learning, 9*, 241-251. [acceptance rate per Cabells: 20-30%]

16. Novak, E., Razzouk, R., & Johnson, T. E. (2012). The educational use of social annotation tools in higher education: A literature review. *The Internet and Higher Education, 15*, 39-49. https://doi.org/10.1016/j.iheduc.2011.09.002. [2016 5-year impact factor: 5.13; acceptance rate per Cabells: 22%].

Book Chapters and Encyclopedia Entries (* indicates work conducted with students; ^ invited)

1. ^Novak, E. (accepted). 3D printing in education. *Routledge Encyclopedia of Education*.

2. ^Novak, E., & Wisdom, S. (in press). Using 3D printing in science for elementary teachers. In J.J. Mintzes and E.M. Walter (Eds.), *Active Learning in College Science: The Case for Evidence-Based Practice.* Berlin: Springer Nature.

3. ^Tassell, J., Novak. E., & *Wu, M. (2018). Video game play, mathematics, spatial skills, and creativity – A study of the impact on teacher candidates. In V. Freiman & J. L. Tassell (Eds.), *Creativity and Technology in Mathematics Education,* 303-322. Switzerland: Springer International.

4. Novak, E., & Johnson, T. E. (2012). Assessment of student's emotions in game-based learning. In D. Ifenthaler, D. Eseryel & X. Ge (Eds.), *Assessment in game-based learning: Foundations, innovations, and perspectives*. New York: Springer.

Publications of Editorials in Peer-Reviewed Journals

1. Novak, E., & Scandura, J.M., (2018). A Preface to a Special Issue on Adaptive Learning Technologies. *Technology, Instruction, Cognition and Learning, 11*, 1-3.

2. Scandura, J.M., & Novak, E. (2017). AuthorIT & TutorIT: Attacking Bloom's 2-sigma problem from a different perspective. *Technology, Instruction, Cognition and Learning, 10(4)*, 267-288.

Publications in Refereed Proceedings (* indicates work conducted with students)

1. Novak, E., *Librea-Carden, M.R. & *Weiszhauz, Y. (2018). I need a Training Program! Gamification of Online Case-based Learning. In T. Bastiaens, J. Van Braak, M. Brown, L. Cantoni, M. Castro, R. Christensen, G. Davidson-Shivers, K. DePryck, M. Ebner, M. Fominykh, C. Fulford, S. Hatzipanagos, G. Knezek, K. Kreijns, G. Marks, E. Sointu, E. Korsgaard Sorensen, J. Viteli, J. Voogt, P. Weber, E. Weippl & O. Zawacki-Richter (Eds.), *Proceedings of EdMedia: World Conference on Educational Media and Technology* (pp. 1011-1017). Amsterdam, Netherlands: Association for the Advancement of Computing in Education (AACE). Retrieved July 3, 2018 from https://www.learntechlib.org/primary/p/184306/.

2. Novak, E., & Tassell, J. (2017). Video games that improve 'learning to learn': Focus on action video game play elements. *Proceedings of IEEE 17th International Conference on Advanced Learning Technologies – ICALT 2017*. (pp. 142-144). Timisuara, Romania. July, 2017. http://doi.ieeecomputersociety.org/10.1109/ICALT.2017.152

3. Novak, E. & Wisdom, S. (2016, in press). Improving preservice elementary teachers' science engagement through 3D printing technology. *Proceedings of the Immersive Italy and the 6th European Immersive Education Summit (EiED 2016)*, Università degli Studi di Padova (the University of Padua), Italy. June, 2016.

4. Novak, E. (2012). Linking gaming characteristics with learning: A literature review. In Simonson, M. R. (Ed.) *35th Annual Proceedings – Louisville, KY: Volume #1, Selected Research and Development Papers of the Annual Convention of the AECT.* (pp. 145-158). Bloomington, IN: AECT.

Technical Reports

1. Rosenberg-Kima, R. B., Novak, E., & Sikorski, E. G. (2010). *Training effects calculator documentation - developing, enhancing, and utilizing human system integration tools*. Technical report prepared for Alion Science and Technology, 4949 Pearl East Circle, Suite 300, Boulder, CO 80301.

2. Johnson, T. E., Sikorski, E. G., Novak, E., Kocyigit, E., Rosenberg-Kima, R. B., Samuel, R., & Becker, B.J. (2009). *Feasibility of modeling the impact of training in IMPRINT for 21st century air force needs (AFRL – BAA 05-04-HE)*. Technical report prepared for the Air Force Research Lab, Human Effectiveness Directorate, Warfighter Readiness Research Division, 6030 South Kent Street, Mesa AZ 85212-6061

3. Johnson, T. E., Spector, J. M., Huang, W.-h. D., & Novak, E. (2007). *Instructional gaming effects on learning outcomes and instructional strategy selection*. Technical Report prepared for Conventional Training versus Game-Based Training Project, Naval Air Warfare Center, Training Systems Division and JXT, Inc, Dayton, OH.

GRANT ACTIVITY

Funded Submissions

Principal Investigator. *Attention, action video games, and mathematics*. Funded by the College of Education and Behavioral Sciences, Western Kentucky University (January, 2014). Total award $3,000.

Principal Investigator. *Using video-based simulations to increase social skills among individuals with autism*. Funded by the Research & Creative Activities Program (RCAP), Western Kentucky University (January, 2014 – May 2015). Total award $13,000.

Dissertation Research Grant Award, Florida State University, 2009. Total award $850

Submissions

Consultant and grant proposal writer. *Authoring Systems Enabling STEM Authors to Create Tutorials that Model Human Tutoring*. Proposed to National Science Foundation, Small Business Innovation Research Program (SBIR), (Submitted, June 2018). Total proposed $225,000 – not funded.

PI (with Joanne Caniglia, Joseph Scandura, Mary Dellmann-Jenkins, & Kathy Zarges). *Dynamically adaptive tutoring in mathematics for prospective teachers*. Submitted to Online Learning Consortium Digital Learning Innovation Award sponsored by the Bill & Melinda Gates Foundation. Total proposed $10,000 – not funded.

PI (with Joseph Scandura, Co-PI). *Comparing Dynamically Adaptive TutorIT Algebra I Tutorials to Carnegie Learning Algebra in Real World Classrooms*. Proposed to: U.S. Department of Education, Institute of Education Sciences, Education Technology CFDA 84.305A (Submitted, August 2015). Total proposed $1.4 million – not funded.

Co-PI (with Joseph Scandura, PI). *Enabling Teachers to Customize Dynamically Adaptive Tutoring Systems and to Create their Own Adaptive Learning Systems*. Proposed to: U.S. Department of Education, Institute of Education Sciences, SBIR (Submitted, January 2015). Total proposed $900,000 – not funded.

Co-PI (with Joseph Scandura, PI). *Dynamically adaptive TutorIT tutors for basic math skills in grades 1-12*. Proposed to: U.S. Department of Education, Institute of Education Sciences, Education Technology CFDA 84.305A (Submitted, August 2014). Total proposed $1.5 million – not funded.

Consultant (with Joseph Scandura, PI). *Dynamically adaptive tutors enabling students working at grade levels 6-9 to catch up, advance more rapidly or move ahead in solving math word problems*. Proposed to: U.S. Department of Education, Institute of Education Sciences, Education Technology CFDA 84.305A (Submitted, August 2014). Total proposed $1.5 million – not funded.

PRESENTATIONS

International Refereed Presentations

1. Novak, E., *Librea-Carden, M.R., & *Weiszhauz, Y. (2018). *I need a training program! Gamification of online case-based learning*. Paper presented at the EdMedia + Innovate Learning Conference. Amsterdam, Netherlands. June 2018.

2. Novak, E., & Tassell, J. (2017). Video games that improve 'learning to learn': Focus on action video game play elements. *IEEE 17th International Conference on Advanced Learning Technologies – ICALT 2017*. Timisuara, Romania. July 2017.

3. Novak, E. & Wisdom, S. (2016). *Improving preservice elementary teachers' science engagement through 3d printing technology*. Paper presented at the Immersive Italy and the 6th European Immersive Education Summit (EiED 2016), Università degli Studi di Padova (the University of Padua), Italy. June, 2016.

National Refereed Presentations

1. Daday, J., Novak, E., & McDaniel, K. (2019). *An empirical investigation of student frustration with e-textbooks in undergraduate general biology courses*. Paper to be presented at the American Educational Research Association (AERA), Toronto, Canada. April 2019.

2. Novak, E. & Thompson, C.G. (2019). *The development of an action video game characteristics instrument: An exploratory factor analysis*. Poster to be presented at the American Educational Research Association (AERA), Toronto, Canada. April 2019.

3. Novak, E., & *Librea-Carden, M.R. (2018). *Integrating 3D Printing Technology in Formal Education: Opportunities and Barriers*. Paper presented at the Association for Educational Communications and Technology (AECT), Kansas City, MO, October 2018.

4. Novak, E., & *Librea-Carden, M.R. (2018). *Enhancing Online Case-based Learning with Game Elements*. Paper presented at the Association for Educational Communications and Technology (AECT), Kansas City, MO, October 2018.

5. Novak, E., Daday, J., & McDaniel, K. (2018). *Examining Factors Influencing E-Text Learning Using a Mathematical Model of Motivation, Volition, and Performance*. Paper presented at the American Educational Research Association (AERA), New York, NY. April 2018.

6. Novak, E. & Wisdom, S. (2018). *3D Printing Technology Projects in a Science Methods Course: Enhancing Prospective Teachers' Science Teaching Confidence*. Poster presented at the American Educational Research Association (AERA), New York, NY. April 2018.

7. Tokac, U., Novak, E., & Thompson, C. (2018). Effects of *Game-based Learning and Students' Mathematics Achievement: A meta-analysis*. Paper presented at the American Educational Research Association (AERA), New York, NY. April 2018.

8. Novak, E. & Wisdom, S. (2017). *The Effects of 3D Printing Design Projects on Preservice Elementary Teachers' Science Engagement and Attitudes*. Paper presented at the Association for Educational Communications and Technology (AECT), Jacksonville, FL. November 2017.

9. Novak, E., Daday, J., & McDaniel, K. (2017). *Intrinsic and extraneous cognitive load in e-textbook learning environments.* Paper presented at the Association for Educational Communications and Technology (AECT), Jacksonville, FL. November 2017.

10. Novak, E., Daday, J., & McDaniel, K. (2017). *Assessing intrinsic and extraneous complexity of e-text learning*. Paper presented at the American Educational Research Association (AERA), San Antonio, TX. May 2017.

11. Novak, E. & Wisdom, S. (2017). *Enhancing Preservice Elementary Teachers' Science Interest and Design Thinking Through 3D Printing Technology*. Poster presented at the American Educational Research Association (AERA), San Antonio, TX. May 2017.

12. Novak E., McDaniel K., & Daday, J. (2016). *Using a mathematical model of Motivation, Volition, and Performance to examine students' e-text learning*. **Featured Research Paper** presented at the Association for Educational Communications and Technology (AECT), Las Vegas, Nevada. October 2016.

13. Novak, E., & Tassell, J. (2016). *How to identify a video game that improves 'learning to learn': An exploratory Action Video Game Characteristics Instrument*. Paper presented at the Association for Educational Communications and Technology (AECT), Las Vegas, Nevada. October 2016.

14. Novak E., McDaniel K., & Daday, J. (2015). *Undergraduate biology students' use and attitudes toward digital textbooks*. Paper presented at the Association for Educational Communications and Technology (AECT), Indianapolis, Indiana.

15. Novak, E. (2015) *Design and development of a dynamically adaptive TutorIT tutorial in basic statistics*. Paper presented at the Association for Educational Communications and Technology (AECT), Indianapolis, Indiana.

16. Novak, E., & Tassell, J. (2015). *Does playing video games improve mathematics performance?* Paper presented at the American Educational Research Association (AERA), Chicago, IL.

17. *Tokac, U., Novak, E., & *Thompson, C. (2015). *Effects of game-based learning on students' mathematics achievement: A meta-analysis*. Poster presented at the American Educational Research Association (AERA), Chicago, IL.

18. Novak, E., & Tassell, J. (2014). *Attention, action video games, and mathematics.* Paper presented at the Association for Educational Communications and Technology (AECT), Jacksonville, FL.

19. *Tokac, U., & Novak, E. (2014). *Effects of game-based learning on children's math performance: A meta-analysis*. Paper presented at the Association for Educational Communications and Technology (AECT), Jacksonville, FL.

20. Novak, E. (2014). *Development and Statistical Evaluation of a Mathematical Model of Motivation, Volition, and Performance*. Paper presented at the American Educational Research Association (AERA), Philadelphia, Pennsylvania.

21. Novak, E. (2013). *Integrating a storyline gaming characteristic and learning content: Effects on learning in various domains of study*. Paper presented at the American Educational Research Association (AERA), San Francisco, CA.

22. Novak, E., Zhao, W., & Reiser, R. (2013). *Development and Formative Evaluation of a Faculty Research Interests/Expertise Database.* Poster presented at the American Educational Research Association (AERA), San Francisco, CA.

23. Novak, E. (2012). *Empirical evidence for linking gaming characteristics with learning: A literature review*. Paper presented at the Association for Educational Communications and Technology (AECT), Louisville, KY.

24. Novak, E. (2012). *Simulations4Stats learning environment*. Showcase presented at the Association for Educational Communications and Technology (AECT), Louisville, KY.

25. Novak, E. (2011). *Instructional simulations and gaming characteristics in statistics education.* Paper presented at the Association for Educational Communications and Technology (AECT), Jacksonville, FL.

26. Novak, E. (2011). *Effects of instructional gaming characteristics on learning effectiveness, efficiency, and engagement of basic statistical analytical skills.* Paper presented at the American Educational Research Association (AERA), New Orleans, LA.

27. Novak, E. (2010). *Simulations4Stats: D&D award winner presentation.* Invited presentation at the Association for Educational Communications and Technology (AECT), Anaheim, CA.

28. Novak, E., Sikorski, E. G., & Johnson, T. (2010). *The effectiveness of simulation environments in technical task performance training: A meta-analysis.* Paper presented at the Association for Educational Communications and Technology (AECT), Anaheim, CA.

29. Novak, E., & Johnson, T. E. (2010). *Gaming intervention validity: Formative evaluation of a simulation for testing the effects of instructional gaming characteristics on learning of basic statistical skills.* Paper presented at the Association for Educational Communications and Technology (AECT), Anaheim, CA.

30. Novak, E., & Johnson, T. E. (2010). *Intervention validity: Formative evaluation of a simulation for testing the effects of instructional gaming characteristics on learning of basic statistical skills.* Paper presented at the American Educational Research Association (AERA), Denver, CO.

31. Johnson, T. E, Sikorski, E. G., Rosenberg-Kima, R. B., & Novak, E. (2010). *Development of a training effects algorithm for use within an agent-based modeling and simulation tool.* Paper presented at the American Educational Research Association (AERA), Denver, CO.

32. Novak, E., Sikorski, E. G., & Johnson, T. E. (2009). *Systematic approach to literature analysis for modeling human training and performance.* Paper presented at the Association for Educational Communications and Technology (AECT), Louisville, KY.

33. Sikorski, E. G., Novak, E., Lee, J., Arsal, G., Kocyigit, E., Rosenberg-Kima, R. B., et al. (2009). *Modeling the effects of various training strategies on technical task performance through literature review, meta-analysis, and algorithm development: A symposium.* Paper presented at the American Educational Research Association (AERA), San-Diego, CA.

34. Sikorski, E. G., Lee, J., Son, C., Novak, E., Sagadevan, A., Yang, Y., et al. (2008). *A model-based approach to mapping task descriptors onto learning objectives and strategies.* Paper presented at the Association for Educational Communications and Technology (AECT), Orlando, FL.

35. Kocyigit, E., Novak, E., Sikorski, E. G., Rosenberg-Kima, R. B., & Johnson, T. E. (2009). *Modeling the effects of various training strategies on technical task performance through literature review, meta-analysis, and algorithm development.* Poster presented at the Annual Florida Educational Research Association (FERA) Conference, Orlando, Florida. (***Best Graduate Student Poster Award***)

36. Novak, E., Shariff, S. A., & Wang, C.-Y. (2008). *Generative teaching: Teaching educational technology.* Poster presented at the Association for Educational Communications and Technology (AECT), Orlando, FL.

Regional/Local Presentations

1. Novak, E. (2018). *Using 3D printing in science for active learning*. Paper presented at the Education Elevated (e^2) conference, Kent State University, Kent, OH.

2. Novak, E., & Wisdom, S. (2018). *Effects of 3D printing project-based learning on preservice elementary teachers' science attitudes, science content knowledge, and anxiety about teaching science*. Poster presented at the University Teaching Council, Kent State University, Kent, OH.

3. *Tokac, U., Novak, E., & *Thompson, C. (2015). *Effects of game-based learning on students' mathematics achievement: A meta-analysis*. Paper presented at the Council on Research in Education (CORE), Marvalene Hughes Research in Education Conference, Tallahassee, FL. ***(Robert M. Gagne Research Award, the Florida State University College of Education's top research award)***

4. Novak, E., Zhao, W., & Reiser, R. (2012). *Faculty research interests / expertise database*. Showcase presented at the FSU Digitech, Tallahassee, FL.

5. Novak, E. (2012). *Simulations4Stats*. Paper presented at the FSU Digitech, Tallahassee, FL.

6. Novak, E., & Johnson, T. E. (2010). *Intervention validity: Formative evaluation of a simulation for testing the effects of instructional gaming characteristics on learning of basic statistical skills.* Paper presented at the Council on Research in Education (CORE), Marvalene Hughes Research in Education Conference, Tallahassee, FL.

7. Novak, E., Sikorski, E. G., Kocyigit, E., Rosenberg-Kima, R. B., & Johnson, T. E. (2009). *Modeling the effects of various training strategies on technical task performance through literature review, meta-analysis, and algorithm development.* Poster presented at the Council on Research in Education (CORE), Marvalene Hughes Research in Education Conference, Tallahassee, FL.

Invited Presentations

1. *Tokac, U., Novak, E., & *Thompson, C. (2015). *Effects of game-based learning on students' mathematics achievement: A meta-analysis*. Florida Statewide Graduate Student Research Symposium, University of Central Florida, Orlando, FL. ***Second place in Education category*** (state).

2. Novak, E. & Tassell, J., (2014). *Attention, Video Games, and Mathematics*. School of Teacher Education, Western Kentucky University (local).

3. Reiser, R.A., Moore, A.L., Novak, E., Walker, R., & Zhao, W. (September, 2013). *Supporting faculty efforts to obtain research funding*. Invited presentation at the American Educational Research Association/Organization of Institutional Affiliates Annual Fall Policy Meeting, Washington, D.C.

Organized Symposia/Colloquium

Novak, E. (Chair), Sottilare, R.A., Fletcher, J.D., Scandura, J.M. (April, 2017). *Symposia: Intelligent Tutoring Systems, BIG DATA-Learning Analytics and Automated Human-like Tutoring: Similarities and Differences*. Held at the American Educational Research Association Meeting, San Antonio, TX.

TEACHING

Kent State University, School of Lifespan Development and Educational Sciences

Courses Taught

Trends in Educational Technology/Computer Applications in Education (ITEC 4/57430), online
Designing Instructional and Performance Solutions (ETEC 6/77445), online
Instructional Applications of the Internet (ITEC 6/77439), online
Designing Multimedia for Instruction (ITEC 6/77432), online
Distance Education (ITEC 6/77436), online
Instructional Design (ITEC 6/77403), online
Teaching Online Courses (ITEC 6/77444), online

New Course Development

Designing Instructional and Performance Solutions (ETEC 6/77445) – online (Fall 2018)
Teaching Online Courses (ITEC 6/777444) – online (Spring 2018)
Computer Applications in Education (ITEC 4/57430) – online (Fall 2015)
Instructional Applications of the Internet (ITEC 6/77439) – online (Fall 2015)
Designing Multimedia (ITEC 6/77432) – online (Spring 2016)

Curriculum Development, as part of ITEC program (ETEC as of Fall 2018)

2018 Developed an online Educational Technology cognate area within an EdD interdisciplinary program for the College of Education, Health and Human Services
2018 Revised a curriculum for an online Master's degree in Educational Technology
2018 Revised a curriculum for an online Computer Technology Endorsement program
2018 Revised a curriculum for an online graduate certificate program in Online and Blended Teaching and Learning

Dissertation Committees

[Chair] Shannon Smith, doctoral candidate. Kent State University
[Chair] James Hayes, doctoral candidate. Kent State University.
[Chair] Donna VanRooy, doctoral candidate. Kent State University.
[Co-Chair] Lisa Muth, doctoral student. Kent State University.
[Co-Chair] Emily Baumgartner, doctoral student. Kent State University.
[Chair] Megan Brannon, doctoral student. Kent State University.
[Committee Member] Holly Ross, Ph.D. (Fall 2019). *Technology, professional development, and student achievement: Using the TELL survey in a study of low socioeconomic schools in Kentucky*. Western Kentucky University.
[Co-Chair] Nancy Weissman, Ph.D. (Spring 2017). *Evaluating the effectiveness of a synchronous online environment in establishing social, cognitive and teaching presence*. Kent State University.

Master's Thesis Committee

[Committee Member] Ann Walter, Kent State University.
[Co-Chair] Steven Walters, ITEC, Kent State University.

Supervision of Student Research not Related to Thesis or Dissertation

Rishabh Gupta (Summer 2018 internship). The Indian Institute of Technology Kharagpur.
Ann Walter (Summer 2017). ITEC Master's student. Kent State University.
Gabriella Therrien (2016-2017). Scotia-Glenville High School, Scotia, New York.

Western Kentucky University, School of Teacher Education

Courses Taught

Systematic Instructional Design (ID 570), online
Performance Improvement Analysis in the Workplace (ID 572), online
Introduction to Instructional Design (ID 573), online
Distance Education (ID 585), online
Management of Instructional Systems (ID 577), online
Student Assessment I, II, III (TCHL 550, 554, 558), online
Special Topics in Instructional Design (ID 575), online

Instructional Design Practicum (ID 590)
Internship in Instructional Design (ID 595)

New Course Development
Systematic Instructional Design (ID 570) – online (Fall 2012)
Management of Instructional Systems (ID 577) – online (Fall 2012)
Distance Education (ID 585) – online (Fall 2012)
Introduction to Instructional Design (ID 573) – online (Spring 2013)
Performance Improvement Analysis in the Workplace (ID 572) – online (Spring 2014)
Special Topics in Instructional Design (ID 575), online (Fall 2014)

Curriculum Development, as part of Instructional Design program
2014 Developed an undergraduate certificate program in Interactive Training Design
2013 Revised a curriculum for an online Master of Science program in Instructional Design
2013 Revised a curriculum for an online graduate certificate program in Instructional Design

Dissertation Committees
[Member] Kellie Phillips, *The use of technology integration to increase student achievement in special education students*, Western Kentucky University.

RESEARCH EXPERIENCE

Graduate Research Assistant to Associate Dean for Research, January 2011- June 2012
College of Education's Office of Research, Florida State University; Tallahassee, FL
Provided assistance in identifying funding opportunities for faculty members. Conducted weekly searches for federal, state, and foundation grants for faculty members. Organized grant search and funding proposal process workshops. Participated in faculty interviews. Developed the College of Education's Office of Research website. Supervised web-based database development project.

Research Assistant to Director of Educational Research, January 2012 – June 2012
Office of Institutional Effectiveness, Tallahassee Community College, Tallahassee, FL
Supported the development, documentation, and monitoring of learning outcomes assessments using WEAVEOnline software application. Collected and analyzed college-wide data that resides in a data warehouse. Conducted qualitative analyses of documents associated with program review and learning outcomes assessment. Analyzed and reported on results of surveys

Graduate Research Assistant, 2006-2011
Learning Systems Institute, Florida State University; Tallahassee, FL
Participated in multidisciplinary research projects in the area of educational technology, training, and modeling human performance in military and educational settings. Led teams of graduate students.

ADDITIONAL PROFESSIONAL EXPERIENCE

Instructional Designer, 2010-2011
College of Medicine, Florida State University; Tallahassee, FL
Collaborated and assisted faculty with the application of instructional design principles. Developed online instructional modules using variety of instructional technology applications.

Instructional Designer, 2009-2010
Learning Systems Institute, Florida State University; Tallahassee, FL
Led development/design/evaluation of instructional game and learning environment for teaching basic statistics skills for college students using Adobe Captivate/ Lectora/ Flash in Moodle and Blackboard Learning Management Systems

Multimedia Language Laboratory Coordinator, 1998–2004
Tel-Aviv University, Tel Aviv, Israel
Supervised two employees. Designed and taught multimedia lab lessons. Consulted with 60 faculty members. Developed multimedia training tutorials and virtual teaching websites. Coordinated lab activities for up to 180 learners per day. Developed and delivered workshops for junior and senior staff on the topics, including integration of educational multimedia resources into teaching Provided technical assistance with software installation, integration, and maintenance. Evaluated and provided recommendation regarding software and hardware purchases.

C++/Unix Programmer, 2000-2001, Tel-Aviv University, Israel
Developed an artificial intelligence algorithm to support the development of an economics model.

C/C++/Unix Instructor, 2000-2001, John Bryce College, Israel.

SERVICE & PROFESSIONAL DEVELOPMENT

University and Community
Kent State University:
Instructional Technology Search Committee, Spring 2016, 2017, & 2018.
Instructional/Educational Technology Curriculum Development Committee, Fall 2015; Fall 2016-present.
LDES Curriculum Committee, 2017-2018.
EHHS EdD Committee, Fall 2017-present.
The University Council on Technology, 2016-present.
Team Kent partnership with Kent City Schools, Fall 2017-present.
Guest Lectures:

- "*3D Printing Technology in Science Education*," C&I 6-71133 Issues and Trends in Science Education seminar for doctoral science education teachers, Fall 2017.
- "*Video Games and 3D Printing to Promote STEM Learning*," ETEC 87450 Learning with Educational Technologies, Fall 2018.

Western Kentucky University:

ID Student Admission Committee, 2012-2015; ID Prior Learning Evaluation Committee, 2013-2015; ID Practicum & Internship Committee, 2013-2015; ID Capstone Committee, 2013-2015; ID Curriculum Development Committee, 2012-2015; School of Teacher Education Research Workgroup, Spring 2014; Deficiency Proficiency Committee, Fall 2012

Florida State University: Cognitive Load Theory (CLT) 2012. Conference Events Planner.

Editorial Board Membership(s)

- Managing Editor (2016–present), *Technology, Instruction, Cognition and Learning (TICL)*
- Co-Editor (2015–2016), *Technology, Instruction, Cognition and Learning (TICL)*
- Special Issue Editor on Adaptive Learning Technologies (2018), *Technology, Instruction, Cognition and Learning (TICL).*
- Consulting Editor (2014–present), *Educational Technology Research and Development (ETR&D)*
- Editorial Board (2014–present), *Technology, Knowledge and Learning*
- Book Prospectus by Phillips J. J., and Patti P. Phillips, P. P. *Handbook of Training Evaluation and Measurement Methods (*4th ed.), Routledge. (Remuneration)
- Book Prospectus by Jill E. Stefaniak. *Essentials of Needs Assessment: Theory, Process, and Practice for Improving Learning and Performance*, Routledge. (Remuneration)
- Guest Reviewer: *Journal for Research in Mathematics Education, Journal of Educational Psychology, Computers & Education, The Internet and Higher Education, Quarterly Journal of Experimental Psychology, Interactive Learning Environments, International Journal of Gaming and Computer-Mediated Simulations*

Reviewer/Panelist for Grant Applications

- Grant Reviewer Panelist, National Science Foundation, Division of Research on Learning in Formal and Informal Settings review committee (2016, 2018)
- Grant Reviewer, Faculty-Undergraduate Student Engagement (FUSE), Western Kentucky University (2013-2015)

American Educational Research Association (AERA)

- Past Chair, Chair, Program Chair and Communications Officer of the Technology, Instruction, Cognition & Learning (TICL) Special Group of Interest, 2014-2018.
- Reviewer, Conferences submissions, 2013-2014, 2018.

Association for Educational Communications and Technology (AECT)

- *Division of Distance Learning Best Practice Award Reviewer*. This international award recognizes best practices in distance education. June, 2017.
- *Division of Distance Learning Journal Article Award Reviewer*. This international award recognizes an outstanding article that describes best practices in distance education or the research on an important aspect of distance education. June, 2017

- *Crystal Award Reviewer*, Crystal Award for recognizing innovative and outstanding multimedia-based distance learning courses, Division of Distance Learning, 2013-2014.
- Design & Development Division Welcome Reception Board, Summer-Fall 2013
- Reviewer, Conference submissions, 2011-2014

IEEE International Conference on Advanced Learning Technologies (ICALT)
ICALT 2017, 2018 & 2019, Program Committee Member.

Army Service
Signal Corps, Israel Defense Forces (IDF), 1995-1996

AFFILIATIONS

Association for Educational Communications and Technology
American Educational Research Association
Association of Mathematics Teacher Educators
Golden Key International Honor Society
Professors of Instructional Design and Technology