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# Deniz Eseryel

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## Research Emphasis

- Designing computer-based interactive learning environments (e.g., e-learning, system dynamics modeling, online communities of practice; virtual reality; digital simulations and games) to facilitate higher-order learning outcomes
- Development of complex problem-solving competencies and adaptive expertise in complex knowledge domains such as STEM (with the emphasis on cognition, metacognition, cognitive regulation, motivation, emotion, and epistemic beliefs)
- Innovative methods for assessing progress of learning and the development of adaptive expertise (e.g., learning analytics and mental model progression)
- Preparing teachers and administrators for digital transformation of education to support effective integration of advanced learning technologies into education
- Innovative STEM learning and teaching practices both at K-20 education and at professional contexts (e.g., military, engineering, and medicine)

## Education

1999 - 2006                      Syracuse University                      Syracuse, NY

### **Ph. D. Instructional Design, Development, & Evaluation**

- Received *Outstanding Dissertation Research Award* from Syracuse University
- Ph.D. Emphasis: Instructional design, development, and evaluation; e-learning; advanced learning technologies; technology integration into teaching
- Dissertation Title: Expert Conceptualizations of the Domain of Instructional Design: An Investigative Study on the DEEP Assessment Methodology for Complex Problem-Solving Outcomes

Chair: Dr. Philip L. Doughty

Committee Members: Dr. J. Michael Spector & Dr. Jerry W. Klein

1997 - 1998                      University of Twente                      Enschede, The Netherlands

### **M. Sc. Educational & Training Systems Design**

- Graduated Cum Laude, top of my class
- M.Sc. Emphasis: Instructional design, instructional technology, performance engineering, teacher education, & school reform
- Masters Thesis Title: Construction of a WWW-based learning environment to support acquisition of instructional design theories.

Promoter & Chair: Prof. Dr. Sanne Dijkstra

Committee Member: Prof. Dr. Betty Collis

1991 - 1995                      Middle East Technical University                      Ankara, Türkiye

### **B. Sc. Science Education / Mathematics Teaching**

- Graduated with High Honor, second of my class
- Dual Degree in Mathematics & Mathematics Education
- Minor in Computer Science

## Academic & Professional Experience

- 07/2013 – Present University of Oklahoma Norman, OK  
**Associate Professor (tenured)**
- Department of Educational Psychology, Instructional Psychology and Technology (IPT) Program
- 07/2007 – 07/2013 University of Oklahoma Norman, OK  
**Assistant Professor**
- Department of Educational Psychology, Instructional Psychology and Technology (IPT) Program
  - K20 Center for Educational & Community Renewal
- 05/2006 – 07/2007 Syracuse University Syracuse, NY  
**Post-Doctoral Research Associate**
- Department of Instructional Design, Development, & Evaluation (IDD&E)
- 01/2000 – 10/2003 University of Bergen Bergen, Norway  
**Research Associate**
- Advanced Design Approach for Personalized Training - Interactive Tools (ADAPT<sup>IT</sup>) Project funded by the European Union Commission Information Society Technology Program (5<sup>th</sup> Framework)
- 10/1999 – 02/2001 Center for Business Information Technologies (CBIT) Syracuse, NY  
**Instructional Designer**
- Designed and developed a number of certificate programs in Information Technology for both classroom-based and distance-delivery courses
- 10/1999 – 08/2000 Merrill Lynch Princeton, NJ  
**Instructional Designer**
- Designed and developed web-based training programs
- 08/1998 – 05/1999 Advanced Computing Management (ACM) Amsterdam, The Netherlands  
**Educational Technologist**
- Designed and developed staff development, train-the-trainer, and online certification programs in information technology; conducted program evaluation
- 08/1997 – 08/1998 University of Twente Enschede, The Netherlands  
**Research Associate**
- Tele-Learning at Toegepaste Onderwijskunde (TeleTOP) eLearning Project
- 08/1995 – 08/1997 Arı College Ankara, Türkiye  
**Mathematics Teacher**
- Taught several mathematics courses (in English) to Grades 6 through 12

## Publications

### Books & Monographs

1. **Eseryel, D.**, Adcock, A., & van Eck, R. (in progress). *Technology-based learning environments to facilitate the development of complex problem-solving competencies in STEM domains*. New York: Springer.
2. Ifenthaler, D., & **Eseryel, D.** (in progress). *Advances in game-based learning*. New York: Springer.
3. \***Eseryel, D.**, Ifenthaler, D., & Ge, X. (Eds.) (2013). *Towards innovation in complex problem solving research: Implications for instructional design and technology*. Special Issue for Educational Technology Research & Development, 61(3).
4. Ifenthaler, D., **Eseryel, D.**, & Ge, X. (Eds.) (2012). *Assessment in game-based learning: Foundations, innovations, and perspectives*. NY: Springer.

### Book Chapters

5. Ψ **Eseryel, D.** (invited). Learning in and about complex domains. In Ge, X., Ifenthaler, D. & Spector, J. M. (Eds.), *Full steam ahead: Emerging technologies for STEAM*. NY: Springer.
6. Ψ **Eseryel, D.** (in press). Causal influence diagramming. In J. M. Spector (Ed). *Encyclopedia of Educational Technology*. Thousand Oaks, CA: Sage.
7. Ψ Ifenthaler, D. & **Eseryel, D.** (2013). Facilitating complex learning by mobile augmented reality learning environments. In R. Huang, J. M. Spector, & Kinshuk, (Eds.), *Reshaping learning: The frontiers of learning technologies in a global context* (pp. 415-438). New York: Springer.
8. Ψ † ‡ **Eseryel, D.**, Guo, Y., & Law, V. (2012). Interactivity<sup>3</sup> design and assessment framework for educational games to promote motivation and complex problem solving skills. In D. Ifenthaler, D. Eseryel, & X. Ge (Eds.). *Assessment in game-based learning: Foundations, innovations, and perspectives* (pp. 257-285). New York: Springer.
9. Ψ Ifenthaler D., **Eseryel, D.**, & Ge, X. (2012). Assessment in game-based learning. In D. Ifenthaler, D. Eseryel, & X. Ge (Eds.). *Assessment in game-based learning: Foundations, innovations, and perspectives* (pp. 3-10). New York: Springer.
10. Ψ † **Eseryel, D.**, Ifenthaler, D., & Ge, X. (2011). Alternative assessment strategies for game-based learning environments. In D. Ifenthaler, Kinshuk, P. Isaias, D. G. Sampson, & J. M. Spector (Eds.), *Multiple perspectives on problem solving and learning in the digital age* (pp. 159-178). NY: Springer.
11. Ψ **Eseryel, D.**, Eseryel, U. Y., & Edmonds, G. S. (2005). Knowledge management and knowledge management systems. In M. D. Lytras & A. Naeve (Eds.), *Intelligent learning infrastructures for knowledge intensive organizations: A Semantic web perspective* (pp. 105-145). Hershey, PA: IDEA Group Publishing.
12. Ψ Klein, J. & **Eseryel, D.** (2005). The corporate learning environment. In M. D. Lytras & A. Naeve (Eds.), *Intelligent learning infrastructures for knowledge intensive organizations: A semantic web perspective* (pp. 1-38). Hershey, PA: IDEA Group Publishing.

**Journal Articles**

13.  $\Psi\ddagger^*$  **Eseryel, D.**, Law, V., Ifenthaler, D., Ge, X., & Miller, R. B. (in press). An investigation of the interrelationships between motivation, engagement, and complex problem solving in game-based learning. *Educational Technology & Society*.
14.  $\Psi^*$  **Eseryel, D.**, Ifenthaler, D., Ge, X. (2013). Validation study of a method for assessing complex ill-structured problem solving by using causal representations. *Educational Technology Research & Development*, 61(3), 443-463. doi:10.1007/s11423-013-9297-2
15. **\*Eseryel, D.**, & Ifenthaler, D., & Ge, X. (2013). Towards innovation in complex problem solving research: An introduction to the special issue. *Educational Technology Research & Development*, 61(3), 359-363.
16.  $\Psi^*$  Eseryel, U. Y. & **Eseryel, D.** (2013). Action-embedded transformational leadership in self-managing global information technology teams. *Journal of Strategic Information Systems*, 22(2), 103-120.
17.  $\Psi\ddagger$  **Eseryel, D.** & Law, V. (2012). Effect of cognitive regulation in understanding complex science systems during simulation-based inquiry learning. *Technology, Instruction, Cognition, & Learning*, 9(1-2), 111-132.
18.  $\Psi\ddagger$  **Eseryel, D.**, Ge, X., Ifenthaler, D., & Law, V. (2011). Dynamic modeling as a cognitive regulation scaffold for complex problem solving skill acquisition in an educational massively multiplayer online game environment. *Journal of Educational Computing Research*, 45(3), 265-287. [\[2012 Outstanding Journal Article Award by the Association of Educational Communications and Technology\]](#)
19.  $\Psi\ddagger$  Law, V., Ge, X., & **Eseryel, D.** (2011). An investigation of the development of a reflective virtual learning community in an ill-structured domain of instructional design. *Knowledge Management & E-Learning: An International Journal*, 3(4), 513-533.
20.  $\Psi$  Eseryel, U. Y. & **Eseryel, D.** (2004). Project management for information technology accessibility initiatives. *Educational Technology and Media*, 29, 61-74.
21.  $\Psi$  Klein, J. & **Eseryel, D.** (2003). A conceptual model for managing change in organizations through blended organizational learning. *e-Lumination*, 5(2), 3-6.
22.  $\Psi^*$  **Eseryel, D.** (2002). Approaches to evaluation of training: Theory and practice. *Educational Technology & Society*, 5(2), 93-98.
23.  $\Psi^*$  **Eseryel, D.**, Ganesan, R., & Edmonds, G. S. (2002). Review of computer-supported collaborative work (CSCW) systems. *Educational Technology & Society*, 5(2), 130-136.
24.  $\Psi^+$  Dijkstra, S., Collis, B. A., & **Eseryel, D.** (1999). Instructional design for tele-learning. *Journal of Computing in Higher Education*, 10(2), 3-18.
25. **Eseryel, D.** (1999). Extending the boundaries of classroom: Can technology help? *ACM Magazine*, 6(1), 3-16.

### **Manuscripts in Review/Revision/Preparation**

26.  $\Psi\ddagger$  \***Eseryel, D.** & Swearingen, D. K. Effective integration of technology-based learning environments into classrooms: Contributions of the activity theory and the social ecology framework. *Educational Technology & Society*.
27.  $\Psi\ddagger$ \* Huang, K., Ge, X., & **Eseryel, D.** Metaconceptually-enhanced simulation-based inquiry learning: Effects on the 8<sup>th</sup> grade students' conceptual change and science epistemological beliefs. *Instructional Science*.
28.  $\Psi$ \* **Eseryel, D.** Solving complex problems: A grounded theory. *Educational Technology Research & Development*.
29.  $\Psi\ddagger$  Swearingen, D. K. & **Eseryel, D.** Student characteristics X treatment interaction effects on ninth grade students' mathematics achievement in problem-centered game-based learning. *Computers & Education*.
30.  $\Psi\ddagger$ \* **Eseryel, D.** & Law, V. *Complexity, cognitive regulation, and understanding of a complex science system*. *Contemporary Educational Psychology*.
31.  $\Psi$  **Eseryel, D.** Model-facilitated approaches to scaffold complex problem solving. In D. Ifenthaler & R. Hanewald (Eds.). *Digital knowledge maps in education: Technology enhanced support for teachers and learners*.
32.  $\Psi$  **Eseryel, D.** Promoting complex problem-solving competencies in STEM via situated learning approaches. In K. Cagiltay & Y. Goktas (Eds.). *Handbook of educational technology: Theories, research, and paradigms*.
33.  $\Psi$ \* **Eseryel, D.** Learning in and about complex systems: Effect of question prompts versus model progression as cognitive-regulation scaffolds in simulation-based inquiry-learning environment. *Science Education*. [Young Researcher Award by the American Educational Research Association \(AERA\) SIG IT\]](#)
34.  $\Psi$ \* **Eseryel, D.** Effect of model-building versus model-using to scaffold complex problem solving during simulation-based inquiry science learning. *Journal of Science Education and Technology*.
35.  $\Psi\ddagger$ \* **Eseryel, D.**, Law, V., McCuen, T., Herron, J. Cognitive processes underlying complex problem solving during inquiry science learning. *Journal of Research in Science Teaching*.
36.  $\Psi$  O'Brian, B., Ge, X., **Eseryel, D.**, Hardre, P., Nihira, M. The "Pit War": Exploring sources of conflicts in the administration of pitocin. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*.
37.  $\Psi$  **Eseryel, D.**, O'Brian, B., Ge, X., Hardre, P., Nihira, M. The influence of shared mental models of healthcare team members on the quality and safety of patient care. *British Medical Journal*.
38.  $\Psi$  **Eseryel, D.** Expert conceptualizations of the domain of instructional design. *Performance Improvement Quarterly*.

### **Refereed Conference Proceedings**

39.  $\Psi$  Mistree, F., Ifenthaler, D., **Eseryel, D.**, Siddique, Z. (2013). *Empowering*

- engineering students to learn how to learn: A competency-based approach. Proceedings of the 120<sup>th</sup> ASEE Annual Conference on Engineering Education*. Atlanta, GA. June 23-26, 2013.
40. Ψ†‡ Law, V., Ge, X., & **Eseryel, D.** (2011). Dimensions of social interactions contributing to knowledge construction and building in an online learning community. *Proceedings of the 9<sup>th</sup> International Conference on Computer-Supported Collaborative Learning*, Hong Kong, China.
  41. Ψ†‡ **Eseryel, D.** & Law, V. (2010). Promoting learning in complex systems: Effect of question prompts versus system dynamics model progressions as a cognitive-regulation scaffold in a simulation-based inquiry-learning environment. S. R. Goldman, J. Pellegrino, K. Gomez, L. Lyons, J. Radinsky (Eds.). *Learning in the Disciplines: Proceedings of the 9<sup>th</sup> International Conference of the Learning Sciences* (Vol. 1, pp. 1111-1118). Chicago, IL.
  42. Ψ†‡ **Eseryel, D.**, Ifenthaler, D., & Ge, X., Law, V., Guo, Y. (2009). A validation study of a methodology for assessing progress of learning and complex, ill-structured problem solving in STEM. In Kinshuk, D. G. Sampson, J. M. Spector & D. Ifenthaler (Eds.), *Cognition and Exploratory Learning in Digital Age (CELDA 2009)* (pp. 363-368). Rome, Italy: IADIS.
  43. Ψ† **Eseryel, D.** (2007). Expert conceptualizations of the domain of instructional design: An exploration of the processes underlying complex, ill-structured problem solving. In M. Simonson (Ed.), *30<sup>th</sup> Annual Proceedings of Selected Research and Development Papers Presented at the National Convention of the Association for Educational Communications and Technology* (Vol. 1, pp. 72-85). Anaheim, CA: AECT.  
[\[2007 AECT Featured Research Paper\]](#)
  44. Ψ† **Eseryel, D.** (2003). Expertise in complex problem solving. In M. Simonson & M. Crawford (Eds.), *26<sup>th</sup> Annual Proceedings of Selected Research and Development Papers Presented at the National Convention of the Association for Educational Communications and Technology* (Vol. 1, pp. 102-110). Anaheim, CA: AECT.
  45. Ψ‡ **Eseryel, D.**, Bludnicki, M., & Doughty, P. (2003). Redesigning graduate programs in instructional Design and Technology: Issues, challenges, & trends. In M. Simonson & M. Crawford (Eds.), *26<sup>th</sup> Annual Proceedings of Selected Research and Development Papers Presented at the National Convention of the Association for Educational Communications and Technology* (Vol. 1, pp. 111-118). Anaheim, CA: AECT.
  46. Ψ† **Eseryel, D.** (2002). Learning in complex domains. In M. Simonson & M. Crawford (Eds.), *25<sup>th</sup> Annual Proceedings of Selected Research and Development Papers Presented at the National Convention of the Association for Educational Communications and Technology* (Vol. 1, pp. 121-129). Dallas, TX: AECT.
  47. Ψ **Eseryel, D.** (2002). A framework for evaluation & selection of e-learning solutions. In G. Richards (Ed.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2002* (pp. 275-282). Chesapeake, VA: AACE.
  48. Ψ† **Eseryel, D.** (2002). An exploration of the potential of causal influence diagrams for assessing progress of learning in complex domains. In P. Barker & S. Rebelsky (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2002* (pp.

- 491-492). Chesapeake, VA: AACE.
49. Ψ **Eseryel, D.** (2002). A conceptual framework for evaluating online learning environments. In P. Barker & S. Rebelsky (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2002* (pp.-). Chesapeake, VA: AACE.
50. Ψ **Eseryel, D.** (2002). Evaluation of online learning environments: A framework. In S. T. Lowe (Ed.), *Proceedings of the 16th Annual Edward F. Kelly Evaluation Conference*. Ithaca: Cornell University.
51. Ψ† **Eseryel, D.**, Schuver-van Blanken, M., & Spector, J. M. (2001). Current practice in designing training for complex skills: Implications for design and evaluation of ADAPT-IT. In C. Montgomerie & J. Vitelli (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia, & Telecommunications 2001* (pp. 474-479). Chesapeake, VA: AACE. [ERIC No: ED462955]
52. Ψ **Eseryel, D.**, & Ganesan, R. (2001). Distributed group design process: Lessons learned. In C. Montgomerie & J. Vitelli (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia, & Telecommunications 2001* (pp. 469-473). Chesapeake, VA: AACE. [ERIC No: ED466156]
53. Ψ† **Eseryel, D.**, & Spector, J. M. (2000). Assessing adaptive instructional design tools and methods in ADAPT-IT. In M. Crawford & M. Simonson (Eds.), *23<sup>rd</sup> Annual Proceedings of Selected Research and Development Papers Presented at the National Convention of the Association for Educational Communications and Technology* (Vol. 1, pp. 121-129). Denver, CO: Association for Educational Communications and Technology. [ERIC No: ED455770]
54. Ψ† Collis, B., **Eseryel, D.**, & Dijkstra, S. (1999). Instructional design of WWW-based course-support environments: From case to principles. In B. Collis & R. Oliver (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 1999* (pp. 231-235). Chesapeake, VA: AACE. [ERIC No: ED462954]

### Research Reports

55. de Croock, M. B. G., van Merriënboer, J. J. G., van der Pal, J., **Eseryel, D.**, Abma, H., & Paas, F. (2002). Advanced design approach for personalised training - interactive tools: The ADAPT Methodology. ADAPT<sup>IT</sup> Deliverable 3.2 prepared for the European Commission DGXIII under contract no. IST-1999-11740 (No. NLR-CR-2002-195). Amsterdam: NLR.
56. **Eseryel, D.** (2002). *Integrating technology into classrooms: Project Year Two*. Annual report prepared for Pacific Regional Technology in Education Consortium (PR\*TEC) – Project Year Two. Syracuse, NY: TSI.
57. **Eseryel, D.** (2001). eLearning Research. Corning, NY: CCFL.
58. Schuver-van Blanken, M. J., **Eseryel, D.**, de Crook, M, van Bavelgem, J., van der Pal, J., (2000). Advanced design approach for personalised training - interactive tools: Training designer's needs. ADAPT<sup>IT</sup> Deliverable 2.2 prepared for the European Commission DGXIII under contract no. IST-1999-11740 (No. NLR-TR-2000-528). Amsterdam: NLR.

**Dissertation & Theses**

59. †**Eseryel, D.** (2006). *Expert conceptualizations of the domain of instructional design: An investigative study on the DEEP assessment methodology for complex Problem-solving outcomes* (Doctoral dissertation). Retrieved from Dissertations and Theses database. (UMI No. 3241853). [\[Received 2006 Outstanding Dissertation Award by Syracuse University\]](#)
60. †**Eseryel, D.** (1998). *Construction of a WWW-based learning environment to support acquisition of instructional design theories* (Master's thesis). University of Twente, Enschede, The Netherlands.

## Conference Presentations & Panels

**Panels Organized for National & International Conferences**

1. **Eseryel, D.** & Ifenthaler, D. (2013). *Towards innovation in complex problem solving research: Implications for instructional design and technology*. Panel session organized for the Annual Meeting of the Association for Educational Communications and Technology, October 30-November 2, 2013. {PANELISTS: Andrew Tawfik, Trevor Bogard, Min Liu, Charoula Angeli, Nicos Valanides, Deniz Eseryel, & Dirk Ifenthaler}
2. Ifenthaler, D., **Eseryel, D.**, & Ge, X. (2012). *Assessment in game-based learning: Foundations, Innovations, and Perspectives*. Panel session organized for the Annual Meeting of the Association for Educational Communications and Technology, October 31-November 3, 2012. {PANELISTS: Valerie J. Shute, Fengfeng Ke, Scott J. Warren, Christian Sebastian Loh, Melissa James, Douglas B. Clark, Debbie Denise Reese, Barbara G. Tabachnick, Deniz Eseryel, & Dirk Ifenthaler}
3. Bradshaw, A., Ge, X., & **Eseryel, D.** (2012). *Supporting students' philosophical development as a necessity in instructional design and technology*. Panel session organized as part of the Professors of Instructional Design and Technology (PIDT) meeting at the Annual Meeting of the Association for Educational Communications and Technology, October 31-November 3, 2012.
4. **Eseryel, D.** (2011). *Current and future trends in the field of instructional design and technology*. Panel session organized for the 2011 Annual Convention of Association for Educational Communications and Technology, Jacksonville, FL, November 8-12, 2011. {PANELISTS: Elizabeth Boling, Andrew Gibbons, & J. Michael Spector}
5. **Eseryel, D.** (2011). *Complex problem solving research: Current state and future directions*. Panel session organized for the 2011 Annual Convention of Association for Educational Communications and Technology, Jacksonville, FL, November 8-12, 2011. {PANELISTS: Woei Hung, David Jonassen, Deniz Eseryel, & Dirk Ifenthaler}
6. Ge, X. & **Eseryel, D.** (2011). *Scaffolding Complex problem solving: Current state and future directions*. Panel session organized for the 2011 Annual Convention of Association for Educational Communications and Technology, Jacksonville, FL, November 8-12, 2011. . {PANELISTS: Roger Azevedo, Michael Hannafin, Xun Ge, & Deniz Eseryel}
7. Ge, X., Ifenthaler, D., & **Eseryel, D.** (2011). *Assessing complex problem solving – Theories, Methods, and Tools*. Panel session organized for the Annual Meeting of the American Educational Research Association, New



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Orleans, LO., April 8-12, 2011. {PANELISTS: Sofie M. M. Loyens, Henk G. Schmidt, Woei Hung, J. Michael Spector, MingMing Zhou, Deniz Eseryel, Dirk Ifenthaler, Xun Ge}

### **Refereed National & International Conference Presentations**

8.  $\Psi^{\dagger}$  **Eseryel, D.** (accepted). *Scaffolding to support complex ecological problem solving in simulation environments*. Paper to be presented at IADIS International Conference on Cognition and Exploratory Learning in Digital Age (CELDA), Forth Worth, Texas, October 22-24, 2013.
9.  $\Psi^{\ddagger}$  Stalker, S. & **Eseryel, D.** (accepted). *Designing to facilitate the development of dynamic decision-making competencies: A view from the domain of emergency response*. Panel to be presented at the Annual Meeting of the Association for Educational Communications and Technology, October 30-November 2, 2013.
10.  $\Psi^{\dagger}$  Mistree, F., Siddique, Z., Allen, J. K., Shehab, R. L., **Eseryel, D.**, & Ifenthaler, D. (2013). *Empowering engineering students to learn how to learn: A competency-based approach*. Paper presented at the 120<sup>th</sup> ASEE Annual Conference on Engineering Education. Atlanta, GA. June 23-26, 2013.
11.  $\Psi^{\ddagger}$  Ifenthaler, D., **Eseryel, D.**, Ge, X., Law, V., & Miller, R. B. (2013). *Do cognitive structure and motivation influence problem representation in game-based learning?* Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA, April 27-May 1, 2013.
12.  $\Psi^{\ddagger}$  McCuen, T. & **Eseryel, D.** (2012). *Fostering spatial reasoning skills to support design problem solving in architecture, engineering and the built disciplines*. Paper presented at the Annual Meeting of the Association for Educational Communications and Technology, October 31-November 3, 2012.
13.  $\dagger$ Ifenthaler, D., **Eseryel, D.**, & Ge, X. (2012). *Assessment in game-based learning*. Paper presented at the Annual Meeting of the Association for Educational Communications and Technology, October 31-November 3, 2012.
14.  $\Psi^{\ddagger}$  Law, V., **Eseryel, D.**, & Ge, X. (2012). *Dynamics of the social aspects of self-regulation during ill-structured collaborative problem solving*. Paper presented at the Annual Meeting of the Association for Educational Communications and Technology, October 31-November 3, 2012. [\[2012 AECT Featured Research Paper\]](#)
15.  $\Psi^{\ddagger}$  **Eseryel, D.**, Miller, R. B, Law, V., Ifenthaler, D., & Ge, X. (2012). *An investigation of the interrelationships between motivation, game-play, and complex problem solving in MMOG learning environments*. Paper presented at the Annual Meeting of the American Educational Research Association, Vancouver, British Columbia, Canada, April 13-17, 2012.
16.  $\Psi^{\ddagger}$  Law, V. & **Eseryel, D.** (2012). *Complexity, cognitive regulation, and understanding of a complex science system*. Paper presented at the Annual Meeting of the American Educational Research Association, Vancouver, British Columbia, Canada, April 13-17, 2012.
17.  $\Psi^{\ddagger}$  Huang, K., Ge, X., & **Eseryel, D.** (2012). *Metaconceptually-enhanced simulation-based inquiry learning: Effects on the 8th grade physics*

- students' conceptual change and epistemological beliefs.* Paper presented at the Annual Meeting of the American Educational Research Association, Vancouver, British Columbia, Canada, April 13-17, 2012.
18.  $\Psi^+$  **Eseryel, D.** (2011). *Model-facilitated approaches to scaffolding complex problem solving.* Paper presented at the 2011 Annual Convention of Association for Educational Communications and Technology, Jacksonville, FL, November 8-12, 2011.
  19.  $\Psi^+$  **Eseryel, D.** (2011). *Cognitive processes underlying complex problem solving.* Paper presented at the 2011 Annual Convention of Association for Educational Communications and Technology, Jacksonville, FL, November 8-12, 2011.
  20.  $\Psi^{\ddagger}$  Law, V. & **Eseryel, D.** (2011). *Cognitive regulation in a simulation-based inquiry learning environment.* Paper presented at the 2011 Annual Convention of Association for Educational Communications and Technology, Jacksonville, FL, November 8-12, 2011.
  21.  $\Psi^{\ddagger}$  Law, V., Ge, X., & **Eseryel, D.** (2011). *Dimensions of social interactions contributing to knowledge construction and building in an online learning community.* Paper presented at the International Conference on Computer Supported Collaborative Learning, Hong Kong, China, July 4-8, 2011.
  22.  $\Psi^{\ddagger}$  McCuen, T. & **Eseryel, D.** (2011). *Spatial skills of students studying the built environment: Assessment and Instruction.* Paper presented at the 47<sup>th</sup> Annual International Conference of the Associated Schools of Construction. Lincoln, OM., April 6-9, 2011.
  23.  $\Psi^+$  **Eseryel, D.**, Ifenthaler, D., & Ge, X. (2011). *Alternative assessment strategies for complex problem solving in game-based learning environments.* Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LO., April 8-12, 2011.
  24.  $\Psi^+$  Ge, X., Planas, L., & **Eseryel, D.** (2011). *Developing valid assessment methods and scoring rubrics to measure ill-structured problem-solving performance.* Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LO., April 8-12, 2011.
  25.  $\Psi^{\ddagger}$  Huang, K., Ge, X., & **Eseryel, D.** (2011). *Metaconceptually-enhanced simulation-based inquiry learning: Effects on the 8th grade physics students' conceptual change and epistemological beliefs.* Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LO., April 8-12, 2011.
  26.  $\Psi^{\ddagger}$  Law, V., Ge, X., & **Eseryel, D.** (2010). *Development of instructional design expertise in a blended learning environment.* Paper presented at the 2010 Annual Convention of Association for Educational Communications and Technology, Anaheim, CA, October 26-30, 2010.
  27.  $\Psi^{\ddagger}$  **Eseryel, D.**, Miller, R. B., Ge, X., Ifenthaler, D., Law, V., & Guo, Y. (2010). *A longitudinal study on the impact of digital game-based learning on complex problem solving skill acquisition and student motivation.* Paper presented at the 2010 Annual Convention of Association for Educational Communications and Technology, Anaheim, CA, October 26-30, 2010.
  28.  $\Psi^+$  **Eseryel, D.** & Ge, X. (2010). *Designing effective game-based learning environments: Implications for design research.* Paper presented at "Educational Design Research: Local Change, Global Impact": A Special

Conference to Honor Professor Thomas C. Reeves Upon his Retirement from the University of Georgia, March 26-27, 2010.

29. Ψ‡‡ **Eseryel, D.** & Law, V. (2010). *Promoting learning in complex systems: Effect of question prompts versus system dynamics model progressions as a cognitive-regulation scaffold in a simulation-based inquiry-learning environment*. Paper presented at the 9<sup>th</sup> International Conference of the Learning Sciences, Chicago, IL, June 29-July 2, 2010.
30. Ψ‡‡ Swearingen, D. & **Eseryel, D.** (2010). *Student characteristics that affect ninth grade students' mathematics achievement in digital game-based learning*. Paper presented at the Annual Meeting of the American Educational Research Association, Denver, CO., April 30-May 4, 2010.
31. Ψ‡‡ Swearingen, D. & **Eseryel, D.** (2010). *The effects of massively multiplayer online games on high school students' mathematics achievement*. Paper presented at the Annual Meeting of the American Educational Research Association, Denver, CO., April 30-May 4, 2010.
32. Ψ‡‡ **Eseryel, D.**, Ge, X., Law, V., Guo, Y., Ifenthaler, D., & Miller, R. B. (2010). *A longitudinal study on the impact of digital game-based learning on complex problem solving skill acquisition: The effect of system dynamics modeling as a scaffold for self-regulation*. Paper presented at the Annual Meeting of the American Educational Research Association, Denver, CO., April 30-May 4, 2010.
33. Ψ‡‡ **Eseryel, D.**, Ifenthaler, D., Ge, X., Law, V., Guo, Y. (2009). *A validation study of a methodology for assessing progress of learning and complex, ill-structured problem solving in STEM*. Paper presented at IADIS International Conference on Cognition and Exploratory Learning in Digital Age (CELDA), Rome, Italy, November 20-22, 2009.
34. Ψ‡‡ **Eseryel, D.** & Swearingen, D. K. (2009). *Student characteristics X treatment interaction effects on ninth grade students' mathematics achievement in digital game-based learning*. Paper presented at the 2009 Annual Convention of Association for Educational Communications and Technology, Louisville, KY., October 27-31, 2009.
35. Ψ‡‡ Ge, X., **Eseryel, D.**, Miller, R. B., Law, V., Hayes, T., & Guo, Y. (2009). *Implementing technology-rich design-based research: Complexities and challenges*. Paper presented at the 2009 Annual Convention of Association for Educational Communications and Technology, Louisville, KY., October 27-31, 2009.
36. Ψ‡‡ **Eseryel, D.**, Ge, X., Law, V., Hayes, T., Guo, Y., & Ifenthaler, D. (2009). *The effects of an educational massively multiplayer online game on students' complex problem solving skill acquisition*. Paper presented at the 2009 Annual Convention of Association for Educational Communications and Technology, Louisville, KY., October 27-31, 2009.
37. Ψ† Miller, R. B., **Eseryel, D.**, & Ge, X. (2009) *Surviving in Space: The effects of a massively multiplayer online game (MMOG) on students' motivation*. Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA., April 13-17, 2009.
38. Ψ‡‡ **Eseryel, D.**, Wilson, S., Whisenhunt, T. G. (2008). *Design based research framework for the McLarin's Adventures MMOG to facilitate complex problem-solving competencies in interdisciplinary STEM Education*. Paper presented at the Annual Convention of Association for

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- Educational Communications and Technology, Orlando, FL, November 4-8, 2008. [[2008 AECT Design & Development Showcase Award](#)]
39. Ψ‡‡ **Eseryel, D.**, Wilson, S., & Whisenhunt, T. G., & (2008) *An instructional design and development model for effective game-based learning environments*. Paper presented at the Annual Convention of Association for Educational Communications and Technology, Orlando, FL, November 4-8, 2008.
  40. Ψ‡‡ Koszalka, T. A., **Eseryel, D.**, Forbes, A., Wu, Y., Lu, L. (2008). *Resuming the conversation: How should instructional designers be educated?* Paper presented at the Annual Convention of Association for Educational Communications and Technology, Orlando, FL, November 4-8, 2008.
  41. Ψ† **Eseryel, D.** (2007). *Expert conceptualizations of the domain of Instructional Design: An exploration of the processes underlying complex, ill-structured problem solving*. Paper presented at the Annual Convention of Association for Educational Communications and Technology, Anaheim, CA, October 23-27, 2007. [[2007 AECT Featured Research Paper](#)]
  42. Ψ† **Eseryel, D.** (2003). *Expertise in complex problem solving*. Paper presented at the Annual Convention of Association for Educational Communications and Technology, Anaheim, CA, October 22-26, 2003.
  43. Ψ‡ **Eseryel, D.**, Doughty, P., & Bludnicki, M. (2003). *Redesigning graduate programs in instructional design and technology: Issues, challenges, and trends*. Paper presented at the Annual Convention of Association for Educational Communications and Technology, Anaheim, CA, October 22-26, 2003.
  44. Ψ† **Eseryel, D.** (2003). *Using causal influence diagrams to assess progress of learning in complex domains*. Paper presented at the Annual Meeting of American Educational Research Association, Chicago, IL.
  45. Ψ† **Eseryel, D.** (2002). *Learning in complex domains*. Paper presented at the Annual Convention of Association for Educational Communications and Technology, Dallas, TX.
  46. Ψ **Eseryel, U. Y. & Eseryel, D.** (2002). *Evaluation of accessibility tools for electronic and information technology*. Paper presented at the Annual Convention of Association for Educational Communications and Technology, Dallas, TX.
  47. Ψ **Eseryel, U. Y. & Eseryel, D.** (2002). *Electronic and information technology accessibility*. Paper presented at the Annual Convention of Association for Educational Communications and Technology, Dallas, TX.
  48. Ψ‡ **Eseryel, D.** & Zeytun, I. (2002). *A framework for evaluation and selection of e-learning solutions*. Paper presented at the World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (E-LEARN 2002), Montreal, CA.
  49. Ψ† **Eseryel, D.** (2002). *An exploration of the potential of causal influence diagrams for assessing progress of learning in complex domains*. Paper presented at the World Conference on Educational Multimedia, Hypermedia and Telecommunications (ED-MEDIA 2002), Denver, CO.
  50. Ψ **Eseryel, D.** (2002). *A conceptual framework for evaluating online learning environments*. Paper presented at the World Conference on

Educational Multimedia, Hypermedia and Telecommunications (ED-MEDIA 2002), Denver, CO.

51. Ψ **Eseryel, D.** (2001). *Characteristics of available computer-based tools to support instructional design*. Paper presented at the Annual Meeting of the Association for Educational Communications and Technology, Atlanta, GA.
52. Ψ†**Eseryel, D.**, & van der Pal, J. (2001). *Evaluation perspectives for advanced training systems*. Paper presented at the European Union IST 5th Framework Concentration Meeting, Luxembourg.
53. Ψ† **Eseryel, D.**, Schuver-van Blanken, M., & Spector, J. M. (2001). *Current practice in designing training for complex skills: Implications for design and evaluation of ADAPT-IT*. Paper presented at the World Conference on Educational Multimedia, Hypermedia and Telecommunications (ED-MEDIA 2001), Tampere, Finland.
54. Ψ† **Eseryel, D.**, & Ganesan, R. (2001). *Distributed group design process: Lessons learned*. Paper presented at the World Conference on Educational Multimedia, Hypermedia and Telecommunications (ED-MEDIA 2001), Tampere, Finland.
55. Ψ† **Eseryel, D.**, & Spector, J. M. (2000). *Assessing adaptive instructional design tools and methods in ADAPT-IT*. Paper presented at the Annual Meeting of the Association for Educational Communications and Technology, Denver, CO.
56. Ψ† Dijkstra, S. & **Eseryel, D.** (1999). *Instructional communication for telelearning*. Paper presented at 8th Biennial Conference for Research on Learning and Instruction (EARLI), Göteborg, Sweden.
57. Ψ† Collis, B., Dijkstra, S., & **Eseryel, D.** (1999). *Instructional design of WWW-based course-support environments: From case to principles*. Paper presented at the World Conference on Educational Multimedia, Hypermedia and Telecommunications (ED-MEDIA'99), Seattle, WA.

#### **Refereed Regional Conference Presentations**

58. †‡ **Eseryel, D.**, Ge, X., Miller, R., Guo, Y., Hayes, T., Law, V., & Swearingen, D. K. (2008). *A longitudinal investigation on the impact of problem-centered game-based instruction & model-facilitated simulation-based instruction on student motivation, math achievement, and complex problem solving skill development*. Paper presented at the K20 Engaged Research Conference, Norman, OK. November 14, 2008.
59. Ψ† **Eseryel, D.** (2006). *Expertise in the domain of instructional design*. Paper presented at the 60<sup>th</sup> IDD&E Centennial Celebration Conference. Syracuse, NY, September 15-17, 2006.
60. Ψ† **Eseryel, D.** (2003). *Potential of mapping techniques for assessing the progress of learning in complex domains*. Paper presented at the 17<sup>th</sup> Annual Edward F. Kelly Evaluation Conference, Syracuse, NY.
61. Ψ **Eseryel, D.** & Serumola, P. (2002). *Instructional design considerations for learning objects: SCORM example*. Paper presented at the Teaching Tools Conference, Syracuse, NY, October 25, 2002.
62. Ψ **Eseryel, D.** (2002). *Evaluation of online learning environments: A framework*. Paper presented at the 16th Annual Edward F. Kelly Evaluation

Conference. Cornell, Ithaca.

63.  $\Psi$  **Eseryel, D.** (2001). *Adaptive instructional design advising systems for professional practitioners*. Paper presented at the Teaching Tools Conference, Syracuse, NY.
64.  $\Psi$  **Eseryel, D.** (2001). *Perfect fit: Selecting the online learning solution for your organization*. Paper presented at the Teaching Tools Conference, Syracuse, NY.
65.  $\Psi$ † Gray, P. J., Spector, J. M., Doughty, P. L., Colley, R. M., **Eseryel, D.**, Robinson, D. J., Arnold, P. P. (2001). *The Mellon Project at Syracuse University: The Cost and Learning Effects of Alternative e-Collaboration Methods in Online Settings*. Teaching Tools Conference, Syracuse, NY.
66.  $\Psi$  Eseryel, U. Y. & **Eseryel, D.** (2001). *A step towards success at E-commerce: E-commerce information systems infrastructure*. Paper presented at the Electronic Business Conference by Middle East Technical University, Ankara, Turkey.

#### Invited Speaking Engagements

67. **Eseryel, D.** (2012). *Ensuring instructional effectiveness of educational game design*. 2<sup>nd</sup> Annual Computing & Technology Symposium of the Department of Computing & Technology. Cameron University, OK. April 11, 2012.
68. **Key Note Speaker: Eseryel, D.** (1999). *Integrating advanced learning technologies into teaching and learning*. ACM 14<sup>th</sup> Annual Meeting. Amsterdam, The Netherlands.

## **Synergistic Activities**

#### Grant-Funded Projects

- **Invited Speaker Series to Facilitate the University of Oklahoma Assessment & Support Initiative in STEM Domains**. Project funded on April 28, 2012 by the University of Oklahoma Research Council - Deniz Eseryel (PI), [\$5,000]
- **Collaborative Research: Assessing the Effect of Contextual Exercise on Student Adoption of Expert CAD Modeling Techniques**. Bugrahan Yalvac (PI) & Deniz Eseryel (Co-PI). Texas A&M University, College of Education and Human Development - Big 12 Faculty Research Grant.
- **Fulbright Scholar-in-Residence Grant**. Project funded on 12/21/2010 by Fulbright - Deniz Eseryel (PI) [\$64,000]
- **Facilitating Learning in Complex Knowledge Domains: Effects of Cognitive Regulation Scaffolding Strategies in Simulation-Based Inquiry Learning in Science**. Project funded on 05/16/2010 by the JRCOE Summer Research Grant Program - Deniz Eseryel (PI), [\$6,000]
- **Impact of Digital Game-Based Learning on Ninth-Grade Students' Complex Problem Solving Skill Acquisition, Motivation, & Mathematics Achievement**. Project funded on 02/26/2008 by the Junior Faculty Research Program at the University of Oklahoma - Deniz Eseryel (PI), [\$6,000]
- **Digital Game-Based Learning** Project funded by the Institute of Education Sciences, STAR Schools Program (07/2007- 07/2011) [\$4,390,000]
- **K-20 Authentic Learning & Teaching (ALT) Program for Engaging At-**

**Risk Students** funded by the Oklahoma State Department of Education (07/2008- 07/2010)

- **K-20 Center Phase II: Whole School Program for Integration of Technology to Support Authentic Learning** funded by the Oklahoma Educational Technology Trust (07/2007- 07/2009)
- **S.O.S. (Situation Outcome Strategies) for Information Literacy** Project funded by the National Leadership Grants from the Institute of Museum and Library Services (IMLS) (09/2003 – 05/2004)
- **Pacific Regional Technology in Education Consortium (PR\*TEC)** Project funded by the U.S. Government (05/2002 – 08/2003)
- **Advanced Design Approach for Personalized Training - Interactive Tools (ADAPT<sup>IT</sup>)** Project funded by the European Union Commission Information Society Technology Program (5<sup>th</sup> Framework) (01/2000 – 10/2003) [2,106,331 EURO]
- **eLearning Research Project** funded by the College Center of Finger Lakes (CCLI) - Deniz Eseryel (PI) (10/1999 – 02/2001) [\$15,000]
- **Tele-Learning at Toegepaste Onderwijskunde (TeleTOP) Project** Funded by the Universeit Twente (08/1997 – 08/1998) [1,956,000 EURO]

#### Grant Proposals Under Review

- **Transforming Faculty Identity for Sustainable Implementation of Evidence-Based Pedagogies in STEM Education.** Proposal submitted to the National Science Foundation, Widening Implementation & Demonstration of Evidence Based Reforms (WIDER) grant program
- **Widening Implementation of Evidence-Based Pedagogies in STEM Education.** Proposal submitted o the U.S. Department of Education, Minority Science and Engineering Improvement Program
- **Trajectories Toward Expertise in STEM majors: The Role of Knowledge, Beliefs, and Motivation.** Proposal submitted to the National Science Foundation Research and Evaluation on Education in Science and Engineering (REESE) grant program by Deniz Eseryel (Co-PI) [\$496,913]
- **Collaborative Research: GOPAS – Games to Support Open Problem-Solving with Automated Scaffolding.** Proposal submitted to the National Science Foundation Transforming Undergraduate Education in STEM (TUES) grant program by Deniz Eseryel (PI) [\$197,580]
- **Full-Scale Development: The BRAIN STEM Project: Bringing Realistic Achievement Into Newly developed minds** Proposal submitted to the National Science Foundation Informal Science Learning Environments Program [NSF 11-546] by Deniz Eseryel (PI) [\$ 1,805,498]

#### Grant Proposals Submitted

- **Assessing and Improving Capstone Education in Engineering.** Proposal submitted on 04/01/2012 to OU College of Engineering [\$5,000]
- **Developing Adaptive Expertise and Visual Reasoning Skills for Effective Complex Problem Solving in the Built Environment Disciplines** Proposal submitted on 05/15/2011 to the University of Oklahoma Faculty Challenge Grant Program by Deniz Eseryel (PI) [\$ 99,733]
- **An Investigation of Obstetric Team Members' Perceptions, Experiences and Feelings Towards Healthcare and Safety Issues – A Collaborative Research Project.** Proposal submitted on 05/17/2011 to the University of

Oklahoma Faculty Challenge Grant Program by [\$ 93,942]

- **K20 SUCCESS: Engaging Rural STEM Talent Expansion through Collaborative Learning Continuum, Digital Game-Based Environment, and Community Engagement.** Proposal submitted on 09/30/08 to the National Science Foundation STEP Program [NSF 08-569] [\$ 2,482,090]
- **SOLVE-IT Interactive Learning Environment for Facilitating Teaching and Learning of Complex, Ill-Structured Problem Solving in STEM Disciplines.** Proposal submitted on 04/25/2008 to the National Science Foundation's Advanced Learning Technology (ALT) Program (NSF 08535) [\$597,443]
- **K20 STEP: Collaborative Efforts to Increasing STEM University Graduates from Rural Settings.** Proposal submitted on 09/18/07 to the National Science Foundation STEP Program [NSF 07-570] [\$ 2,499,998]
- **The Enhanced Technology Integration Support for K-8 Educators (ENTISE) Project.** Proposal submitted on 07/2007 to the Institute of Education Sciences, Teacher Quality-Mathematics & Science Education [\$3,000,000]
- **Enhanced Technology Integration Support for K-8 Educators (ENTISE) Project.** Proposal submitted on 07/2007 to the Institute of Education Sciences-Teacher Quality-Reading and Writing [\$2,000,000]

## Teaching & Supervision

### A. COURSES TAUGHT

#### Academic: University of Oklahoma, Norman, Oklahoma, USA

- EIPT 5533 – Motivation, Cognition, and Learning in Classroom (Spring 2013)
- EIPT 5940 – Instructional Design & Technology (IDT) Lab (Fall 2012; Spring 2013)
- EIPT 6143 – Instructional Design I (Fall 2012 & 2013)
- EIPT 6163 – Instructional Design II (Spring 2012)
- EIPT 6930-014 – Design Problem Solving (Fall 2011 & Spring 2012)
- EIPT 6173 – Management of Instructional Technology Projects (Spring 2011)
- EIPT 5533 / LIS 5533 – Introduction to Instructional Technology (Fall 2010 & Fall 2011)
- EIPT 6930-014 – Self Regulation & Collaboration in Problem Solving (Fall 2010)
- EIPT 6613 – Educational Modeling, Simulations, & Games (Spring 2008, Spring 2009, & Spring 2010; Spring 2014 – Blended Course)
- EIPT 6930 – Instructional Design for Complex Problem Solving (Fall 2008, Fall 2009, Spring 2013 – Blended Course)

#### Academic: Syracuse University, Syracuse, New York, USA

- IDE737 – Advanced Instructional Design
- IDE735 – Modeling, Simulations, and Gaming in Education
- IDE830 – Doctoral Seminar in Design & Development



- IDE621 – Principles of Instruction and Learning
- IDE850 – Advanced Studies in Instructional Design and Emerging Technologies
- IDE614 – Instructional Design: Theory & Practice
- IDE700 – School Improvement Through Performance Feedback Systems

#### **Academic: University of Twente, Enschede, The Netherlands**

- Instructional Design Theories [online & classroom delivery]
- Human-Computer Interaction [online]
- Electronic Performance Support Systems [online]

#### **Workshops**

- Human Resources Development and Management; Performance Engineering; Learning Organizations; & Knowledge Management (a 3-week training program developed for the Indonesian National Family Planning Coordinating Board (BKKBN)(September 9-27, 2002).
- Effective Communication in Diverse Contexts: Synthetic Cultures Simulation Exercise (Workshop developed for AGWAY Energy Products Summer Conference) (July 24, 2002)
- Train-the-Trainer Workshop: Integrating advanced learning technologies into teaching and learning (1998-1999)
- Train-the-Trainer Workshop: Adult learning (1998-1999)
- Faculty In-Service Development: Effective teaching and learning via Web-based learning technologies: The TeleTOP methodology (1997-1998)

## **B. SUPERVISION OF GRADUATE STUDENT RESEARCH**

#### **Doctoral Dissertations Supervised**

- Lance Ford  
Dissertation Title: The pursuit of a PhD as a virtual professional learning community: A phenomenological dramaturgy of one cohort's experience (Completion Date: June 2009)
- Bill Caruthers  
Dissertation Title: Scientifically based research in educational products: Vendors and consumers on filling the certification gap (Completion Date: November 2009)
- Kun Huang  
Dissertation Title: Metaconceptually-enhanced simulation-based inquiry learning: Effects on the 8<sup>th</sup> grade students' conceptual change and science epistemological beliefs (Completion Date: May 2011)
- Dixie Swearingen  
Dissertation Title: The effects of digital game-based learning on students' mathematics achievement (Completion Date: May 2011)
- Victor Law  
Dissertation Title: A multilevel investigation of the social aspects of self-regulation in the context of collaborative ill-structured problem solving

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(Completion Date: July 2012)

### **Master's Thesis Supervised**

- Katherine Woodson  
Thesis Title: Do RWA, SDO, and perceived self-efficacy predict teachers' prejudice against ESL students and intention to pursue ESL training?  
(Completion Date: April 2010)
- Sarah Stalker  
Thesis Title: Designing a weather awareness training program for school superintendents and school principals  
(Planned Completion Date: July 2013)
- Robert J Graves  
Thesis Title: Analysis of United States Army Ethical Decision Making Education  
(Planned Completion Date: May 2014)

### **Overview of Advising/Mentoring**

- Master's Advisees (1 graduated; 6 in progress)
- Graduate Research Assistants Mentored (8 to date; 4 graduated)
- Graduate Teaching Assistants Mentored (4 to date; 2 graduated)

## **Service, Leadership, & Team Roles**

### **Service to the Profession**

- **Editor:**
  - Interdisciplinary Journal of Problem-Based Learning (IJPBL) – Book Review Section (November 2011 – 2013)
- **Guest Editor:**
  - Special Issue for Educational Technology Research & Development (ETR&D): *Towards Innovation in Complex Problem Solving Research: Implications for Instructional Design and Technology* (April 2012 – June 2013)
- **Editorial Board Member:**
  - Technology, Knowledge, and Learning (October 2013 – Present)
  - Karaelmas Journal of Educational Sciences (July 2013 – Present)
  - International Journal of Mobile Learning and Organisation (IJMLO) (April 2005 – Present)
  - International Journal of Knowledge and Learning (IJKL) (June 2004 – Present)
- **Reviewer:**
  - Journal of Educational Computing Research (JECR) (May 2011 – Present)
  - Interdisciplinary Journal of Problem-Based Learning (April 2011 – Present)
  - Educational Technology, Research, & Development (ETR&D) – Research Section (November 2010 – Present)
  - Educational Technology, Research, & Development (ETR&D) –

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- Development Section (November 2010 – Present)
  - Technology, Instruction, Cognition, & Learning (TICL) (May 2009 – Present)
  - International Journal of Computers and Applications (IJCA) (November 2005 – Present)
  - European Journal for Psychological Assessment (EJPA) (February 2005 – Present)
  - **Offices Held in Professional Organizations**
    - **Past President**, Association for Educational Communications & Technology (AECT) Design & Development Division (November 2012 – November 2013)
    - **President**, Association for Educational Communications & Technology (AECT) Design & Development Division (November 2011 – November 2012)
    - **President-Elect**, Association for Educational Communications & Technology (AECT) Design & Development Division (October 2010-Present) (October 2010 – October 2011)
    - **Vice-President of Communications**, Association for Educational Communications & Technology (AECT) Design & Development Division (October 2009 – October 2010)
    - **Communications Officer**, AERA SIG# 52:Instructional Technology (SIG-IT) (April 2009 – April 2010)
    - **Membership Chair**, AERA SIG# 119: Technology, Instruction, Cognition, and Learning (SIG TICL) (April 2003 – April 2009)
  - **Planner/Committee Member for National/International Conferences**
    - **Program Co-chair** IEEE International Conference on Advanced Learning Technologies (ICALT 2014) (July 7-10, 2014)
    - **Conference Planner** of the 2011 Association of Educational Communications & Technology Design & Development Division (November 2010-November 2011)
    - **International Scientific Program Committee Member** International Applied Education Congress, Ankara, Turkiye (September 12-15, 2012)
    - **International Scientific Program Committee Member** The 5th World Scientific & Engineering Academy and Society (WSEAS). International Conference on Distance Learning and Web Engineering (DIWEB '05) Corfu, Greece (September 23-25, 2005)
    - **Conference Program Chair**, 2003 Edward Kelly Program Evaluation Conference Syracuse, NY.
  - **Professors of Instructional Design & Technology (PIDT) Group:**
    - “Supporting students’ philosophical development as a necessity in instructional design & technology” – session organized for the 2012 mini-PIDT Meeting, Louisville, KY. (with Drs. Amy Bradshaw & Xun Ge)
    - “Does Our Curriculum Match Up?” – session organized for the 2002 PIDT Meeting, Smith Mountain Lake, VA. (with Dr. Phil Doughy)
    - “Knowledge Management for PIDT: Introducing DocuShare” – training session organized for the 2002 PIDT Meeting, Smith Mountain Lake, VA.

- “Qualitative Research Tools” – session organized for the 2002 PIDT Meeting, Smith Mountain Lake, VA.
- “Mapping the Complexity of Instructional Design” – session organized for the 2002 PIDT 2002 Meeting, Smith Mountain Lake, VA.
- **Reviewer for National and International Conferences:**
  - American Educational Research Association (Division C Sec. 5 Learning Environments; Sec. 7 Technology Research; SIG TICL; SIG-IT) [2003-Present]
  - Association for Educational Communications and Technology (Division of Design & Development; Division of Research & Theory) [2002-Present]
  - International Conference of the Learning Sciences [2007-Present]

### **Service to University of Oklahoma, Norman, OK, USA**

- **Service to the K20 Center**
  - Provided professional development on technology integration to the K-12 schools in Phase II and Star Schools Programs (2007-2009)
  - Program Committee Member: K20 Center Winter Institute & Open House (2007-2009)
  - Supported K-12 STEM outreach & professional development activities (2008-2009)
  - Led the collaborative efforts to build an educational exchange program in *Second Life* between the K-12 schools in Amien, France and the K-12 schools linked to the K20 Center (2008-2009).
- **Service to the Instructional Psychology & Technology (IPT) Program**
  - IPT Admissions Committee (2012 – Present)
  - IPT Recruitment Committee (2010 – Present)
  - IPT Curriculum Revision & Reading Committee Member: Instructional Design (ID) Specialization (2008- Present)
  - IPT Curriculum Revision & Reading Committee Member: Interactive Learning Technologies (ILT) Specialization (2008- Present)
- **Service to the Department of Educational Psychology**
  - EDPY Student Engagement Task Force (August 2013 – Present)
  - EDPY Election Committee (2012 – Present)
- **Service to the Jeannine Rainbolt College of Education**
  - JRCOE Research & Travel Committee (2010 – 2013)
  - JRCOE Grad Scholarship (2010 – Present)
- **Service to the University of Oklahoma**
  - Student Academic Conduct Panel Member (August 2013 – Present)
  - Represented the K20 Center and Department of Educational in meetings with the external Blue Ribbon team to support the ongoing efforts to build the research and scholarship enterprise at OU (2009)
  - OU Community Engagement Committee Member (2008-2009)

**Service to Syracuse University, Syracuse, New York, USA**

- Faculty Advisor to IDD&E Centennial Celebration Conference (September 15-17, 2006)
- Goodwill Ambassador to New Student Orientation (August 2005)
- IDD&E Brown Bag Planning Team Member (Fall 2004)
- Member and Program Chair of 2003 Edward Kelly Program Evaluation Conference Planning Team at SU
- Member of new student applications review committee (Summer 2003)
- Member of the IDD&E curriculum redesign committee (2000-2002)
- Organizer of IDD&E new-student orientation program (August 2001)

**Service to University of Twente, Enschede, The Netherlands**

- Member of the TeleTOP implementation team (1997-1998)
- Provided in-service training and consulting to faculty on telematics-based teaching (1997-1998)

**Service to the Public**

- **Grant Proposal Reviewer:** For *OETT Grants to Schools Program* funded by Oklahoma Educational Technology Trust (OETT) and the Achievement through Collaboration and Technology Support (OK-ACTS)
- **Board Member:** International Center of Syracuse, a non-for-profit organization to promote global understanding through personal contact, by developing professional programming and individual hospitality for international visitors of Central New York. (2003-2006)
- **Vice President:** SEBIT, a non-for-profit organization dedicated to supporting educational technology projects for K-12 (1995-1997)

## **Awards, Certificates, & Scholarship**

**Awards & Honors**

- **2013 Outstanding Service Award in Recognition to the Presidential Service to the Division** by the Association of Educational Communications and Technology (AECT) Design & Development Division
- **2012 Outstanding Journal Article Award** by the Association of Educational Communications and Technology (AECT) Design & Development Division for my paper entitled, "*Dynamic modeling as a cognitive regulation scaffold for complex problem solving skill acquisition in an educational massively multiplayer online game environment*" in *Journal of Educational Computing Research*, 45(3), 265-287.
- **2012 AECT Featured Research Paper** at the 2012 Annual Meeting of the Association for Educational Communications and Technology for the paper entitled, "*Dynamics of the social aspects of self-regulation during ill-structured collaborative problem solving*"
- **2010 Young Researcher Award by American Educational Research Association (AERA) SIG IT** for my paper entitled, "Facilitating Learning in Complex Ecology Systems: Effect of Question Prompts versus System Dynamics Model Progressions as Cognitive Regulation Scaffolds in a Simulation-Based Inquiry-Learning Environment"

- **2008 AECT Design & Development Showcase Award** for “Design based research framework for *McLarin’s Adventures MMOG* to facilitate complex problem-solving competencies in interdisciplinary STEM Education”.
- **2007 AECT Featured Research Paper** at the 2007 Annual Meeting of the Association for Educational Communications and Technology for my paper entitled, “*Expert conceptualizations of the domain of Instructional Design: An exploration of the processes underlying complex, ill-structured problem solving.*”
- **2006 Outstanding Dissertation Research Award** by Syracuse University for exemplary inquiry in the field of instructional technology (May 12, 2006)
- **International Scholar Award** by Alpha Sigma Chapter of Phi Beta Delta
- **Finalist** Syracuse University Entrepreneurial Competition [*CrossCultures: Next Generation Advanced Training Solutions for Cross-Cultural Communication & Global Business Management*, April 4, 2003].

#### **Certificates**

- **Certificate of Completion of the New Faculty Seminar** awarded by the Program for Instructional Innovation at the University of Oklahoma (November 27, 2007)
- **Certificate in University Teaching** awarded in 2006 by Syracuse University for successful completion of the requirements of the Future Professoriate Project

#### **Scholarships**

- **Scholarship** for a Doctoral study at Syracuse University by Turkish Council of Higher Education (\$128,000)
- **Scholarship** for Master’s study at the University of Twente by Netherlands Organization for International Cooperation in Higher Education (NUFFIC) (\$55,000)

## **Professional Memberships**

- Association for Educational Communications & Technology (AECT)
- American Educational Research Association (AERA)
- International Society of the Learning Sciences (ISLS)
- European Association of Research on Learning & Instruction (EARLI)
- Association for the Advancement of Computing in Education (AACE)
- American Society for Training & Development (ASTD)
- International Society for Performance Improvement (ISPI)
- IEEE Education Society
- System Dynamics Society