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EDUCATION

Ed. D., Instructional Technology, West Virginia University, Morgantown, WV 1992
Title of Dissertation: *The Effect of Hypermedia Assisted Instruction on Second Language Learning Through a Semantic Network Based Approach;*
Advisor: Mike Reed

M.A., Instructional Technology, West Virginia University, Morgantown, WV 1990

M.A., Linguistics, East China Normal University, Shanghai, China *1986*

B.A., English, East China Normal University, Shanghai, China *1982*

PROFESSIONAL APPOINTMENTS

Program Coordinator & Graduate Advisor *August 1, 2002 – present*
Learning Technologies Program
Department of Curriculum & Instruction
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Full Professor *Sept. 1, 2006 – present*
Learning Technologies Program
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Associate Professor *Sept. 1, 1999 – Aug. 31,2006*
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Assistant Professor *Sept. 1, 1993 - Aug. 31, 1999*
Instructional Technology Program
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Assistant Director *Feb. 1, 1990 – June 30, 1993*

College of Human Resources &
Education Learning Technology Center
West Virginia University

Co-Director (interim) *Feb. 1, 1992 – June 30, 1992*
College of Human Resources &
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West Virginia University

Research Assistant *Sept. 1, 1987 - Feb. 1990*
Research and Training Center
West Virginia University

Computer Consultant *Aug., 1986 - Feb., 1990*
College of Human Resources &
Education Learning Technology Center
West Virginia University

Lecturer *Feb., 1982 - Aug., 1986*
East China Normal University
Shanghai, China

Co-editor *1983 - 1985*
Foreign Language Teaching Abroad
East China Normal University
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PUBLICATIONS

Peer-Reviewed Journal Articles (Total=95; 1st author= 58; 2nd author= 23; other authorship= 14)

(Italic indicates co-authors are current students OR current students at the time and since graduated)

1. *Han*, S., Castellanos-Reyes, D., Jiang, Z., & **Liu**, M (2026) Profiling students who thrive in MOOCs: Voluntary evaluators within a high-engagement cluster prioritize practical tools and structured content. *Journal of Computing in Higher Education*. https://doi.org/10.1007/s12528-026-09495-3

2. **Liu**, M., *Han***,** *S*., *Shao, P*., & *Cai, Y.* (2025). Mental Effort Matters: Unpacking the Influence of Need for Cognition on Middle School Students' Motivation and Learning Performance in Technology-Enriched Problem-Based Learning. *Educational technology Research and Development. 73.* 1321-1346. *https://doi.org/10.1007/s11423-025-10465-2* (Impact Factor: 3.3; 5-year IF: 4.8)

   Note**:** This is the full paper based on a paper which won the 2025 AERA Instructional Technology SIG- Best Paper Award.)

3. *Han, S,* **Liu**, M. *Cai, Y., & Shao, P.* (2025*).* Need for cognition's impact in science PBL: assessing motivation and learning outcome among diverse middle school students. *Instructional Science*. https://doi.org/10.1007/s11251-025-09731-w [2023 Impact factor: 2.1(2024); 5-YR Impact Factor: 3.0 (2024)]

4. *Shao*, P., Meng, C., *Pan*, Z., & **Liu**, M (2025) Revealing Pre-service Teachers' Reflections Regarding Online Practicum Through the Lens of TPACK. *Education and Information Technologies*, 30, 7009-7043. https://doi.org/10.1007/s10639-024-13053-8 (2024 Impact Factor: 5.4; 5-YR impact Factor 5.7 (2024))

5. *Han*, S., Ji, H., Jung, J., Lee, U., & **Liu**, M. (2025). Understanding Sentiments Toward Educational Chatbots in MOOCs: Neutral Interactions, Diverse Reflections, and Key Predictive Factors. *Technology, Knowledge and Learning.* 10.1007/s10758-025-09902-1 (2024 Impact Factor: 3.5; 5-YR impact Factor 4.2 (2024)

6. *Han, S., &* **Liu**, M. *(2024).* Equity at the Forefront: A Systematic Design and Development Process for Chatbot Curriculum for massive open online courses. *Educational Technology & Society 27(4),* 349-361.https://doi.org/10.30191/ETS.202410_27(4).SP08 [Impact Factor: 4.595; 5-YR Impact Factor: 4.737]

7. **Liu**, M., *Cai, Y., Han, S., & Shao, P*. (2023). Understanding Middle School Students' Self-Efficacy and Performance in a Technology-Enriched Problem-Based Learning Program: A Learning Analytics Approach. *Journal of Educational Technology Systems*. *51*(4). 513-543.https://doi.org/10.1177/00472395231174034 (h5-index: 29)

8. *Han, S.,* Hamilton, X. D., *Cai, Y., Shao, P*., **Liu**, M. (2023). Knowledge-Based Chatbots: A Scale Measuring Students' Learning Experiences in Massive Open Online Courses. *Educational Technology Research and Development, 71*(6), 2431-2456. https://doi.org/10.1007/s11423-023-10280-7 (2023 Impact factor: 3.3) (2023 Impact Factor: 3.3; 5-year IF: 4.8)

9. **Liu**, M., *Cai*, Y., *Han*, S., & *Shao*, P. (2022). Understanding Student Navigation Patterns in Game-Based Learning. *Journal of Learning Analytics*, *9*(3), 50-74. [Impact Factor: 4.646] https://doi.org/10.18608/jla.2022.7637

10. *Cai*, Y., *Pan*, Z., *Han*, S, *Shao*, P., & **Liu**, M. (2022). The impact of multimodal communication on learners' experience in a synchronous online environment: A mixed-methods study. *Online Learning journal, 26*(4). 118-145. DOI: https://doi.org/10.24059/olj.v26i4.3448 (2023 Impact factor: 2.8)

11. *Pan, Z. &* **Liu**, M. (2022). The Role of Adaptive Scaffolding System in Supporting Middle School Problem-Based Learning Activities. *Journal of Educational Technology Systems*. *51*(2), 117–145. https://doi.org/10.1177/00472395221133855

12. *Han, S.,* **Liu**, M., *Pan, Z., Cai, Y., & Shao, P*. (2022). Making FAQ chatbots more inclusive: An examination of non-native English users' interactions with new technology

in massive open online courses. *International Journal of Artificial Intelligence in Education*. [Impact Factor: 4.816] https://doi.org/10.1007/s40593-022-00311-4

13. *Cai*, Y., *Pan*, Z., & **Liu**, M. (2022). Augmented reality technology in language learning: A meta-analysis. *Journal of Computer Assisted Learning, 38(*4). 929 -945. [Impact Factor: 3.761] https://doi.org/10.1111/jcal.12661

14. **Liu**, M., *Pan*, Z., *Cai*, Y., *Shao*, P., & *Han*, S. (2021). The Effect of a Multimedia-Enriched Problem-Based Learning Environment on Socioeconomically Disadvantaged Middle School Students' Science Learning: Examining the Relationship Among Self-Efficacy, Attitude, and Performance. *Journal of Educational Multimedia and Hypermedia*, *30*(4), 359-391.

15. **Liu**, M., *Li*, C., & *Pan*, Z. (2022). Creating an Interactive Dashboard to Support Middle School Teachers' Implementation of a Technology-Supported Problem-Based Learning Program. *International Journal of Designs for Learning. 13(*1). 1-18. https://doi.org/10.14434/ijdl.v13i1.31243

16. **Liu**, M., *Shi*, Y., *Pan*, Z., *Li*, C., *Pan*, X. & *Lopez*, F. (2021). Examining middle school teachers' implementation of a technology-enriched problem-based learning program: Motivational factors, challenges, and strategies, *Journal of Research on Technology in Education*. *53*(3), 279-295. https://doi.org/10.1080/15391523.2020.1768183

17. **Liu,** M., *Pan*, Z., *Li*, C., *Han*, S., *Shi*, Y. & *Pan*, X. (2021). Using Learning Analytics to Support Teaching and Learning in Higher Education: A Systematic Focused Review of Journal Publications from 2016 to Present. *International Journal on E-Learning* (IJEL), *20*(2), 137-169.

18. *Zou*, W., Hu, X., *Pan*, Z., *Li*, C., *Cai*, Y., & **Liu**, M. (2021). Exploring the relationship between social presence and learners' prestige in MOOC discussion forums using automated content analysis and social network analysis. *Computers in Human Behavior, 115.* https://doi.org/10.1016/j.chb.2020.106582

19. *Pan*, Z., *Lopez*, F., *Li*, C. & **Liu**, M. (2021). Introducing Augmented Reality in Early Childhood Literacy Learning. *Research in Learning Technology, 29*. https://doi.org/10.25304/rlt.v29.2539

20. **Liu**, M., *Zou*, W., *Shi*, Y., *Pan*, Z. & *Li*, C. (2020). What Do Participants Think of Today's MOOCs: An Updated Look at the Benefits and Challenges of MOOCs Designed for Working Professionals. *Journal of Computing in Higher Education, 32(*2). 301-329. https://doi.org/10.1007/s12528-019-09234-x

21. *Liu*, S. & **Liu**, M. (2020). The Impact of Learner Metacognition and Goal Orientation on Problem Solving in a Serious Game Environment. *Computers in Human Behavior*. 102, 151-165.

22. *Kang*, J., **Liu**, M. (2020). Investigating Navigational Behavior Patterns of Students Across At-Risk Categories Within an Open-Ended Serious Game. *Technology, Knowledge and Learning*. https://doi.org/10.1007/s10758-020-09462-6

23. **Liu**, M., *Li*, C., *Pan*, Z., & *Pan*, X. (2019). Mining big data to help make informed decisions for designing effective digital educational games. Journal of *Interactive Learning Environments,* https://doi.org/10.1080/10494820.2019.1639061

24. Naul, E. & **Liu**, M. (2019). Why story matters: A review of narrative in serious games. *Journal of Educational Computing Research,* https://doi.org/10.1177/0735633119859904

25. **Liu**, M., *Liu*, S., *Pan*, Z., *Zou*, W. & *Li*, C. (2019). Examining Science Learning and Attitudes by At-Risk Students After They Used a Multimedia-Enriched Problem-Based Learning Environment. *Interdisciplinary Journal of Problem-Based Learning.13*(1).

26. *Shu*, L. Y. & **Liu**, M. (2019). Student Engagement in Game-Based Learning: A Literature Review from 2008 to 2018. *Journal of Educational Hypermedia and Multimedia, 28*(2). 193-215.

27. **Liu**, M., *Ko*, Y., *Willmann*, A., & *Fickert*, C. (2018). Examining the Role of Professional Development in a Large School District's iPad Initiative, *Journal of Research on Technology in Education. 50*(1), 48-69. DOI: 10.1080/15391523.2017.1387743

28. Liu, M., *McKelroy*, *Corliss*, S., & *Carrigan*, J. (2017). Investigating The Effect of An Adaptive Learning Intervention on Students' Learning. *Educational Technology Research & Development* (ETRD) journal. *65*(6), 1605–1625. https://doi.org/10.1007/s11423-017-9542-1

29. Liu, M., *Kang*, J., *Zou*, W., *Lee*, H., *Pan*, Z, & *Corliss*, S. (2017). Using Data to Understand How to Better Design Adaptive Learning. *The Technology, Knowledge and Learning* journal*, 22*(3), 271-298. https://doi.org/10.1007/s10758-017-9326-z

30. *Kang*, J., **Liu**, M., *Qu*, W. (2017). Using Gameplay Data to Examine Learning Behavior Patterns in a Serious Game. *Computers in Human Behavior, 72*, 757-770. https://doi.org/10.1016/j.chb.2016.09.062

31. **Liu**, M., *Navarrete*, C., *Scordino*, R., *Kang*, J. *Ko*, Y. J., and *Lim*, M. H. (2016). Examining Teachers' Use of iPads: Comfort Level, Perception, and Use. *Journal of Research on Technology in Education, 48*(3), 159-180.

32. **Liu**, M., *McKelroy*, E., *Kang*, J. *Harron*, J., & *Liu*, S. (2016). Examining the Use of Facebook and Twitter as an additional social space in a MOOC. *The American Journal of Distance Education, 30*(1)*,* 14-26*.* DOI: 10.1080/08923647.2016.1120584

33. **Liu**, M., *Lee*, J., *Kang*, & *Liu*, S. (2016). What We Can Learn From The Data: A Multiple-Case Study Examining Behavior Patterns By Students With Different Characteristics In Using a Serious Game. *The Technology, Knowledge and Learning journal*. *21*(1), 33-57. DOI: 10.1007/s10758-015-9263-7

34. **Liu**, M., *Abe*, K., *Cao*, M., *Liu*, S., *Ok*, D., *Park*, J., *Parrish*, C., & Sardegna, V. (2015). An analysis of social network websites for language learning: Implications for teaching and learning English as a Second Language. *CALICO Journal, 32*(1). Retrieved 21 February, 2015, from http://www.equinoxpub.com/journals/index.php/CALICO/article/view/25963

35. **Liu**, M., *Kang*, J. & *McKelroy*, E. (2015). Examining Learners' Perspective of Taking a MOOC: Reasons, Excitement, and Perception of Usefulness. *Educational Media International* Journal, *52*(2), 129-146. DOI:10.1080/09523987.2015.1053289

36. **Liu,** M., *Scordino*, R., *Geurtz*, R, *Navarrete*, C., *Ko*, Y. J., and *Lim*, M. H. (2014). A Look at Research on Mobile Learning in K-12 Education From 2007 to Present. *Journal of Research on Technology in Education, 46*(4), 325-372. DOI:10.1080/15391523.2014.925681

37. **Liu**, M. *Kang*, J., *Cao*, M. W, *Lim*, M. H., *Ko*, Y. J., *Myers*, R., & Schmitz Weiss, A. S. (2014). Understanding MOOCs as an Emerging Online Learning Tool: Perspectives From the Students. *American Journal of Distance Education. 28(3),* 147-159. DOI: 10.1080/08923647.2014.926145

38. **Liu**, M., *Horton*, L., *Lee*, J., *Kang*, J., *Rosenblum*, J., *O'Hair*, M. & *Lu*, C. W. (2014). Creating a Multimedia Enhanced Problem-Based Learning Environment for Middle School Science: Voices from the Developers. *Interdisciplinary Journal of Problem-Based Learning, 8*(1). Available at: http://dx.doi.org/10.7771/1541-5015.1422

39. **Liu**, M. *Navarrete*, C. C., and *Wivagg*, J. (2014). Potentials of Mobile Technology for K-12 Education: An Investigation of iPod touch Use for English Language Learners in the United States. *Journal of Educational Technology & Society, 17*(2), 115-126.

40. **Liu**, M., *Rosenblum*, J., *Horton*, L., & *Kang*, J. (2014). Designing Science Learning with Game-Based Approaches. *Computers in the School, 31*(1/2)*, 84-102.* DOI:10.1080/07380569.2014.879776

41. **Liu**, M. (2014). Motivating Students to Learn Using A Game-Based Learning Approach. *Texas Education Review, 2*(1), 117-128. Available online at www.txedrev.org

42. **Liu**, M. *Navarrete*, C. C., *Maradiegue*, E., and *Wivagg*, J. (2014). Mobile Learning and English Language Learners: A Case Study of Using iPod Touch As a Teaching and Learning Tool. *Journal* of *Interactive Learning Research, 25*(3), 373-403.

43. **Liu**, M., *Horton*, L., *Kang*, J., *Kimmons*, R. and *Lee*, J. (2013). Using a Ludic Simulation to Make Learning of Middle School Space Science Fun. *The International Journal of Gaming and Computer-Mediated Simulations, 5*(1). 66-86. DOI: 10.4018/jgcms.2013010105

44. **Liu**, M., *Yuen*, T. T. *Horton*, L., *Lee*, J., *Toprac*, P. and *Bogard*. T. (2013). Designing Technology-Enriched Cognitive Tools To Support Young Learners' Problem Solving. *The International Journal of Cognitive Technology. 18*(1), 14-21.

45. *Bogard*, T., **Liu**, M., & *Chiang*, Y. H (2013). Thresholds of Knowledge Development in Complex Problem Solving: A Multiple-Case Study of Advanced Learners' Cognitive Processes. *Educational Technology Research and Development. 61*(3), 465-503. DOI DOI 10.1007/s11423-013-9295-4

46. **Liu**, M., *Wivagg*, J. *Geurtz*, R., *Lee*, S. T. & *Chang*. M. (2012). Examining How Middle School Science Teachers Implement A Technology Enriched Problem-Based Learning Environment*. Interdisciplinary Journal of Problem-Based Learning. 6*(2), 46-84.

47. **Liu**, M., *Kalk*, D., *Kinney*, L., & *Orr*, G. (2012). Web 2.0 and Its Use in Higher Education from 2007-2009: A Review of Literature. *International Journal on E-Learning (IJEL), 11*(2), 153-179.

48. *Kimmons*, R., **Liu**, M., *Kang*, J. & *Santana*, L. (2011-2012). Attitude, Achievement, and Gender in a Middle School Science-based Ludic Simulation for Learning. *Journal of Educational Technology Systems, 40*(4), 341-370*.*

49. **Liu**, M, *Horton*, L., *Olmanson*, J. & *Toprac*, P. (2011). A Study of Learning and Motivation in A New Media Enriched Environment For Middle School Science, *Educational Technology Research and Development (ETR&D), 59*(2), 249-266. doi:10.1007/s11423-011-9192-7.

50. *Wang*, P. Y, Vaughn, B. K., & **Liu**, M. (2011) The impact of animation interactivity on novices' learning of introductory Statistics, *Computers & Education*, *56*(1), 300-311.

51. *Yuen*, T., & **Liu**, M. (2010). A cognitive model of how interactive multimedia authoring facilitates conceptual understanding of object-oriented programming in novices. *Journal of Interactive Learning Research*, 22(3), 329-356.

52. *Stevenson*, M. P. & **Liu**, M. (2010). Learning a Language with Web 2.0: Exploring the Use of Social Networking Features of Foreign Language Learning Web sites. *CALICO* Journal, *27*(2), 233-259.

53. **Liu**, M., *Horton*, L., *Corliss*, S. B., Svinicki, M. D., *Bogard*, T., *Kim*, J., & *Chang*, M. (2009). Students' problem-solving as mediated by their cognitive tool use: A study of tool use patterns*, Journal of Educational Computing Research, 40*(1), 111-139.

54. **Liu**, M., *Horton*, L., *Olmanson*, J. & *Wang*, P. Y. (2008*).* An Exploration of Mashups and Their Potential Educational Uses. *Computers in the School,* 25 *(3/4)*, 243-258*.*

55. **Liu**, M., *Traphagan*, T., *Huh*, J., *Koh*, Y. I., & *Choi*, G., & *McGregor*, A. (2008). Designing Web sites for ESL learners: A usability testing study. *CALICO* Journal, *25*(2), 207-240.

56. *Shih*, Y. H. & **Liu**, M. (2008). The importance of Emotional Usability. *Journal of Educational Technology System*. *36*(2), 203-218.

57. *Hsieh*, P. H., *Cho*. Y., **Liu**, M., & Schallert, D. L. (2008). Examining the interplay between middle school students' achievement goals and self-efficacy in a technology-enhanced learning environment. *American Secondary Education Journal*, *36*(3), 33-50.

58. *Li*, R. & **Liu**, M. (2007). Understanding the effects of databases as cognitive tools in a problem-based multimedia learning environment. *Journal of Interactive Learning Research, 18*(3), 345-363.

59. **Liu**, M., *Hsieh*, P., *Cho*, Y. J. & Schallert, D. L. (2006). Middle school students' self-efficacy, attitudes, and achievement in a computer-enhanced problem-based learning environment. *Journal of Interactive Learning Research. 17*(3). 225-242.

60. *Bera*, S. & **Liu**, M. (2006). Cognitive tools, individual differences, and group processing as mediating factors in a hypermedia environment. *Computers in Human Behavior, 22*(2). 295-319.

61. *Hao*, Y. W. & **Liu**, M. (2006). Students' Attitudes toward online interaction. *Academic Exchange Quarterly. 10*(4), 74-79.

62. **Liu,** M (2005). The effect of a hypermedia learning environment on middle school students' motivation, attitude, and science knowledge. *Computers in the Schools, 22*(3/4), 159-171.

63. **Liu**, M, & *Bera*, S. (2005). An analysis of cognitive tool use patterns in a hypermedia learning environment. *Educational Technology Research and Development, 53*(1), 5-21.

64. **Liu**, M., *Bera*, S., *Corliss*, S., Svinicki, M., & *Beth*, A. (2004). Understanding the connection between cognitive tool use and cognitive processes as used by sixth graders in a problem-based hypermedia learning environment. *Journal of Educational Computing Research, 31*(3), 309-334.

65. **Liu**, M. (2004). Examining the performance and attitudes of sixth graders during their use of a problem-based hypermedia learning environment. *Computers in Human Behavior. 20* (3), 357-379.

66. **Liu**, M. (2003). Enhancing learners' cognitive skills through multimedia design. *Interactive Learning Environments. 11*(1), 23-39.

67. *Pedersen*, S. & **Liu**, M. (2003). Teachers' beliefs about issues in the implementation of a student-centered learning environment. *Educational Technology Research and Development. 51*(2), 57-76.

68. **Liu**, M. & Y. P. *Hsiao*. (2002). Middle school students as multimedia designers: A project-based learning approach. *Journal of Interactive Learning Research, 13(*4), 311-337.

69. **Liu**, M., *Gibby*, S., *Quiros*, O., & *Demps*, E. (2002). Challenges of being an instructional designer for new media development: A view from the practitioners. *Journal of Educational Hypermedia and Multimedia, 11*(3), 195-219.

70. **Liu**, M., Moore, Z., *Graham*, L., & *Lee*. S. (2002). A look at the research on computer-based technology use in second language learning: review of literature from 1990-2000. *Journal of Research on Technology in Education, 34*(3), 250-273.

71. **Liu**, M, *Williams*, D., & *Pedersen*, S. (2002). Alien Rescue: A problem-based hypermedia learning environment for middle school science. *Journal of Educational Technology Systems, 30*(3), 255-270.

72. *Pedersen*, S. & **Liu**, M. (2002). The transfer of problem-solving skills from a problem-based learning environment: the effect of modeling an expert's cognitive processes. *Journal of Research on Technology in Education. 35*(2), 303-320.

73. *Pedersen*, S. & **Liu**, M. (2002). The effects of modeling expert cognitive strategies during problem-based learning. *Journal of Educational Computing Research. 26*(4), 353-380.

74. **Liu**, M., *Papathanasiou*, E., & *Hao*, Y. (2001). Exploring the use of multimedia examinations in teaching and learning for undergraduate education: results from fielding testing. *Computers in Human Behavior. 17*(3), 225-248.

75. **Liu**, M, & *Pedersen*, S. (1998). The effect of being hypermedia designers on elementary school students' learning of design knowledge. *Journal of Interactive Learning Research. 9*(2), 155-182.

76. *Williams*, D, *Pedersen*, S., & **Liu**, M. (1998). An evaluation of the use of problem-based learning software by middle school students. *Journal for Universal Computer Science*, *4*(4), 466-483.

77. **Liu**, M. (1998). The effect of hypermedia authoring on elementary school students' creative thinking skills. *Journal of Educational Computing Research. 19*(1), 27-51.

78. **Liu**, M. (1998). A Study of Engaging High School Students as Multimedia Designers in Cognitive Apprenticeship-Style Learning Environment. *Computers in Human Behavior. 14* (3), 387-415.

79. **Liu**, M, *Jones*, C., & *Hemstreet*, S. (1998). A study of the multimedia design and production process by the practitioners. *Journal of Research on Computing in Education. 30*(3), 254-280.

80. **Liu**, M. (1997/1998). Interactive multimedia in an informal setting: The use of a multimedia information kiosk by university students. *Journal of Educational Technology Systems, 26*(1), 35-53.

81. **Liu**, M. & *Rutledge*, K. (1997). The effect of a "learner as multimedia designer" environment on at-risk high school students' motivation and learning of design knowledge. *Journal of Educational Computing Research, 16*(2), 145-177.

82. **Liu**, M. (1997). The effects of HyperCard programming on teacher education students' problem-solving ability and computer anxiety. *Journal of Research on Computing in Education*, *29*(3), 248-262.

83. *Jones*, M. & **Liu**, M. (1997). Introducing interactive multimedia young children: A case study of how two-year-olds interact with the technology. *Journal of Computing in Childhood Education, 8*(4), 313-343.

84. **Liu**, M. (1996). An exploratory study of how pre-kindergarten children use the interactive multimedia technology: Implications for multimedia software design. *Journal of Computing in Childhood Education, 7* (1/2), 71-92.

85. *McDaniel*, K. & **Liu**, M. (1996). A study of project management techniques for developing interactive multimedia programs: A practitioner's perspective. *Journal of Research on Computing in Education*, *29*(1), 29-48.

86. Reed, W. M., Ayersman, D. J., & **Liu**, M. (1996). The effect of students' computer-based prior experiences and instructional exposures on the application of hypermedia-related mental models. *Journal of Educational Computing Research, 14*(2), 175-197.

87. **Liu**, M. (1995). Contextual enrichment through hypermedia technology: Implications for second language learning. *Computers in Human Behavior*, *11*(3/4), 439-450.

88. **Liu**, M. & Reed, W. M. (1995). The effect of Hypermedia-assisted-instruction on second language learning. *Journal of Educational Computing Research. 12*(2), 159-175.

89. **Liu**, M., Ayersman, D. J., & Reed, W. M. (1995). Perceptions of a hypermedia environment. *Computers in Human Behavior, 11*(3/4), 411-428.

90. Reed, W. M., Ayersman, D. J., & **Liu**, M. (1995). The effects of three different hypermedia courses on students' attitudes. *Computers in Human Behavior, 11*(3/4), 495-510.

91. Reed, W. M., Ayersman, D. J., & **Liu**, M. (1995). The effect of hypermedia instruction on stages of concern of students with varying authoring language and hypermedia prior experience. *Journal of Research on Computing in Education*. *27*(3), 297-317.

92. **Liu**, M. & Reed, W. M. (1994). The relationship between the learning strategies and learning styles in a Hypermedia environment. *Computers in Human Behavior, 10* (4), 419-434.

93. **Liu**, M. (1994). Hypermedia-assisted-instruction and second language learning: A semantic-network-based approach. *Computers in the Schools, 10*(3/4), 293-312.

94. Reed, W. M. & **Liu**, M. (1994). The comparative effects of BASIC programming versus HyperCard programming on problem-solving, computer anxiety and performance. *Computers in the Schools, 10*(1/2), 27-46.

95. **Liu**, M., Reed, W. M., & Phillips, P. D. (1992). Teacher education students and computers: Gender, major, use, occurrence, and anxiety. *Journal of Research on Computing in Education*, *24*(4), 457-467.

Peer-Reviewed Book Chapters (Total=22; 1st author= 16; 2nd author= 2, other author =4)

1. *Han*, S., Han, J., Shin, J. & **Liu**, M. (2026). Generative AI in Adult Online Learning. In Mayrath, M et al (Eds). *The Handbook of Generative AI in Education: Integrating Research into Practice (*pp. 399-419). Springer Publishing. https://doi.org/10.1007/978-3-032-24819-0

2. *Pan, Z., Li, C., Zou, W.* & **Liu,** M. (2023). Applying Learning Analytics Approaches to Detect and Track Students' Cognitive States During Virtual Problem-Solving Activities. In G. Durak and S. Cankaya (Eds.) *Perspectives on Learning Analytics for Maximizing Student Outcomes* (pp. 15-43), Hershey, PA: IGI Global. DOI: 10.4018/978-1-6684-9527-8.ch002

3. **Liu**, M., *Han*, S., *Shao*, P., *Cai*, Y. & *Pan*, Z. (2021). The current landscape of research and practice on visualizations and dashboards for learning analytics, In: Sahin M., and Ifenthaler D. (Eds.) *Visualizations and Dashboards for Learning Analytics* (pp. 23-46). Springer, Cham. https://doi.org/10.1007/978-3-030-81222-5_2.

4. *Zou*, W., *Pan*, Z., *Li*, C., & **Liu**, M. (2021). Does social presence play a role in learners' positions in MOOC learner network? A machine learning approach to analyze social presence in discussion forums, In A. R. Ruis, and S. B. Lee (Eds.) *Advances in Quantitative Ethnography* (pp. 248-264). Springer International Publishing.

5. **Liu**, M., *Zou*, W., *Li*, C., *Shi*, Y. *Pan*, Z. & *Pan*, X (2019). Using learning analytics to examine relationships between learners' usage data with their profiles and perceptions: A case study of a mooc designed for working professionals, In D. Ifenthaler, D. Mah, and J. Y. Yau (Eds.) *Utilizing Learning Analytics to Support Study Success* (pp. 275-294). New York: Springer International Publishing.

6. **Liu**, M., *Pan*, Z., *Pan*, X, *An*. D, *Zou*, W., *Li*, C., & *Shi*, Y. (2019). The use of analytics for educational purposes: A review of literature from 2015 to present. In M. S. Khine, (Ed.) *Emerging trends in learning analytics*: *Leveraging the power of educational data* (pp. 26-44). Boston: Brill Sense.

7. **Liu**, M., *Horton*, L., *Li*, C., & *Pan*, Z. (2019). Alien Rescue. In K. Schrier (Ed.) *Learning, Education, & Games: 100 Games to Use in the Classroom and Beyond* (Vol. III, pp. 23-27) Pittsburgh, PA: ETC Press (Carnegie Mellon).

8. **Liu,** M., *Kang*, J., *Liu*, S., *Zou*, W., & *Hodson*, J. (2017). Learning Analytics as an Assessment Tool in Serious Game: A Review of Literature. In M. Ma & A. Oikonomou

(Eds). *Serious Games and Edutainment Applications* (Vol. II.) (pp. 537-563). New York: Springer. DOI: 10.1007/978-3-319-51645-5

9. *Lee, J.* & **Liu, M** (2017). Design of Fantasy and Their effect on Learning and Engagement. In R. Zheng and M. Gardner (Eds.) *Handbook of Research on Serious Games for Educational Applications* (pp. 200-219), Hershey, PA: IGI Global. DOI: 10.4018/978-1-5225-0513-6.ch009

10. **Liu**, M., *Horton*, L., *Kang*, J., *Kimmons*, R. and *Lee*, J. (2017). Making Learning Fun: An Investigation of Using a Ludic Simulation for Middle School Space Science. In B. Dubbels (Ed.) *Transforming Gaming and Computer Simulation Technologies across Industries* (pp. 130-152), Hershey, PA: IGI Global.

11. **Liu**, M., Su, S. *Liu*, S., *Harron*, J., *Fickert*, C., and Sherman, B. (2016). Exploring 3D Immersive and Interactive Technology for Designing Educational Learning Experiences, In F. M., Neto, R. de Souza, & A.S. Gome, (Eds.) *Handbook of Research on 3-D Virtual Environments and Hypermedia for Ubiquitous Learning* (pp. 243-261). Hershey, PA: IGI Global.

12. **Liu**, M., *Kang*, J., *McKelroy*, E., *Harron*, J., and *Liu*, S. (2016*).* Investigating Students' Interactions with Discussion Forums, Facebook, and Twitter in a MOOC and Their Perceptions. In B. Khan, (Ed.) *Revolutionizing Modern Education through Meaningful E-Learning Implementation* (pp. 118-41), Hershey, PA: IGI Global.

13. *Kang*, J., *Liu*, S., & **Liu**, M. (2017). Tracking Students' Activities in Serious Games, In F. Q. Lai & J. D. Lehman (Eds.) *Learning and Knowledge Analytics in Open Education* (pp. 125-137). Switzerland: Springer International Publishing. Retrieved from http://link.springer.com/chapter/10.1007/978-3-319-38956-1_10

14. **Liu,** M., *Kang*, J., *Lee*, J, *Winzeler*, E., & *Liu*, S. (2015). Examining through visualization what tools learners access as they play a serious game for middle school science. In C. S. Loh, Y. Sheng, & D. Ifenthaler (Eds.) *Serious Games Analytics*: *Methodologies for Performance Measurement, Assessment, and Improvement* (pp. 181-208), Switzerland: Springer, DOI 10.1007/978-3-319-05834-4**.**

15. **Liu**, M., *Navarrete*, C. C., *Maradiegue*, E., and *Wivagg*, J. (2014). A Multiple-Case Study Examining Teachers' Use of iPod Touches in Their Pedagogical Practices for English Language Learners, In D. McConatha, C. Penny, J. Schugar & D. L. Bolton (Eds.) *Mobile Pedagogy and Perspectives on Teaching and Learning* (pp. 165-185), IGI-Global Publishing. DOI: 10.4018/978-1-4666-4333-8.ch010

16. **Liu**, M. *Evans*, M., Horwitz, E., *Lee*, S. *McCrory*, M., J. *Park*, and *Parrish* C. (2013), A Study of the Use of Social Network Sites for Language Learning By University ESL Students. In M. Lamy & K. Zourou (Eds.) *Social networking for language education* (pp. 137-157), NY, NY: Palgrave Macmillan.

17. **Liu**, M., *Geurtz*, R, *Karam*, A., *Navarrete*, C. and *Scordino*, R. (2013), Research on Mobile Learning in Adult Education. In W. Kinuthia & S. Marshall (Eds.) *On the Move: Mobile Learning for Development*, Charlotte, NC: Information Age Publishing**.**

18. **Liu**, M. *Wivagg*, J. *Maradiegue*, E., and *Navarrete*, C. C. (2013). Affordances and Challenges of Using iPods to Support Learning by English Language Learners at the Middle School Level, In P. M. Pumilia-Gnarini, E. Favaron, E. Pacetti, J. Bishop & L. Guerra (Eds.), *Handbook of Research on Didactic Strategies and Technologies for Education: Incorporating Advancements* (pp. 275-288), IGI-Global. DOI: 10.4018/978-1-4666-2122-0.ch023.

19. **Liu**, M., *Horton*, L., *Toprac*, P. & *Yuen*. T. (2011). Examining the Design of Media Rich Cognitive Tools as Scaffolds in a Multimedia Problem-Based Learning Environment, In M. Orey, S. A. Jones, & R. M. Branch (Eds.), *Educational Media and Technology Yearbook (EMTY), 36*. DOI 10.1007/978-1-4614-1305-9_10. New York: Springer.

20. **Liu**, M., *Toprac*, P., & *Yuen*, T. (2009). What factors make a multimedia learning environment engaging: A case study. In R. Zheng, (Ed.) *Cognitive Effects of Multimedia Learning* (pp. 173-192). Hershey, PA: Idea Group Inc.

21. *Li*, R. & **Liu**, M. (2008). The Effects of Using A Computer Database Tool on Middle School Students' Cognitive Skill Acquisition in A Multimedia Learning Environment. In R. Kobayashi, (Ed.) *New Educational Technology* (pp.67-88). Hauppauge, NY: Nova Science Publishers, Inc.

22. ***Liu**, M., Kishi, C., & *Rhoads*, S. (2007). Strategies & heuristics for novice instructional designers as they work with faculty content experts in a university setting. In M. Keppell, (Ed.) *Instructional Design: Case Studies in Communities of Practice* (pp.36-67). Hershey, PA: Idea Group Inc.

<u>Other Publications</u> (Invited/Non-Peer-Reviewed)

Hughes+, J. E., **Liu**, M., & Resta, P. (2015). ICT Research into K-16 Teaching and Learning Practices, In M. Orey & R. M. Branch (Eds.), *Educational Media and Technology Yearbook (EMTY), 39* (pp. 69-82), New York: Springer. DOI 10.1007/978-3-319-14188-6.

+Authors are listed in the alphabetical order

Liu, M., Burton, J., & Bonk, C. J. (2010). Reflective Addendum: Mike's Life, to W. Michael Reed: At the Beginnings Using Computers in Education for Higher-Order Learning by Min **Liu** and John Burton. In M. Orey, S. A. Jones, & R. M. Branch (Eds.), *Educational Media and Technology Yearbook (EMTY), 35*.

Pedersen, S., **Liu**, M. & *Williams*, D. (2002). Alien Rescue: Designing for student-centered learning. *Educational Technology*. *42*(5), 11-14.

Manuel, M., & **Liu**, M. (1994). The use of interactive videodisc in early childhood education: An example. *Hypermedia and Multimedia Studies*, 6(1/2), 6-10.

Edited Book/ Journal Special Issue

Reed, W. M., Ayersman, D., & **Liu**, M. (Eds.) (1995). Hypermedia: Theory, Research and Application. [Special issue]. *Computers in Human Behavior, 11*(3/4).

Reed, W. M., Burton, J. K. & **Liu**, M. (Eds.). (1994). *Multimedia and Megachange: New Roles for Educational Computing*, New York: Haworth Press.

Articles in Peer-Reviewed Conference Proceedings (Competitively selected)
(Total=72; 1st author= 42; 2nd author= 18; other authorship=12)

1. *Cai, Y., Shao, P., Han, S.,* & **Liu**, M. (2025). Analyzing Middle School Students' Performance in a Multimedia-Enriched Problem-Based Learning Program Through Learning Analytics. Proceedings of the Annual AECT Convention, 2024. *The Journal of Applied Instructional Design, 14*(2). https://doi.org/10.59668/2222.20763

2. *Shao, P.,* Meng, C., *Pan, Z.,* & **Liu**, M. (2024). Investigate pre-service teachers' learning behaviors and their relationship with academic performance through LMS log data. Proceedings of the Annual AECT Convention, 2023. *The Journal of Applied Instructional Design, 13*(2). https://dx.doi.org/10.59668/1269.15628

3. Liu, M. (2023). *Supporting K-12 Teachers to Implement Problem-Based Learning in Their Classrooms Through a Dashboard*. In E. Langran (Ed.), Proceedings of Society for Information Technology & Teacher Education International Conference (pp. 899-905). New Orleans, LA, United States: Association for the Advancement of Computing in Education (AACE). Retrieved May 17, 2023 from https://www.learntechlib.org/primary/p/222192/.

4. *Han*, S., Jung, J., Ji, H., Lee, U., Liu, M. (2023). *The Role of Social Presence in MOOC Students' Behavioral Intentions and Sentiments Toward the Usage of a Learning Assistant Chatbot: A Diversity, Equity, and Inclusion Perspective Examination*. In: Wang, N., Rebolledo-Mendez, G., Dimitrova, V., Matsuda, N., Santos, O.C. (eds) Artificial Intelligence in Education. Posters and Late Breaking Results, Workshops and Tutorials, Industry and Innovation Tracks, Practitioners, Doctoral Consortium and Blue Sky. AIED 2023. Communications in Computer and Information Science, vol 1831. Springer, Cham. https://doi.org/10.1007/978-3-031-36336-8_36

5. Han, S., Ji, H., Jiang, Z., West, M., & **Liu**, M. (2023). What do students want to know while taking massive open online courses? Examining massive open online course students' needs based on online forum discussions from the Universal Design for Learning approach. In *LAK23: 13th International Learning Analytics and Knowledge Conference* (pp. 572-578). https://doi.org/10.1145/3576050.3576072 [Approximate Acceptance Rate: 30%]

6. *Han S.* & **Liu**, M. (2022). *Developing an Inclusive Q&A Chatbot in Massive Open Online Courses*. In: Rodrigo, M.M., Matsuda, N., Cristea, A.I., Dimitrova, V. (eds)

Artificial Intelligence in Education (pp. 10-15). Springer, Chams. https://doi.org/10.1007/978-3-031-11647-6_2 [Approximate Acceptance Rate: 24%]

7. *Pan*, Z. & **Liu**, M. (2022). The effects of learning analytics hint system in supporting students problem-solving. *LAK22: 12th International Learning Analytics and Knowledge Conference* (pp.77–86). https://doi.org/10.1145/3506860.3506871

8. **Liu**, M., *Pan*, Z., *Li*, C., *Han*, S., *Shi*, Y. & *Pan*, X. (2020, November). *Using Learning Analytics to Support Teaching and Learning in Higher Education: A Systematic Focused Review of Journal Publications from 2016 to Present.* In T. Bastiaens & G. Marks (Eds.), *Proceedings of Innovate Learning Summit 2020* (pp. 192-201). Association for the Advancement of Computing in Education (AACE). Retrieved January 24, 2021 from https://www.learntechlib.org/primary/p/218801/.

9. Han, S. & **Liu**, M. (2021). Empowering Teachers through Professional Development Program and Online Learning Community. In E. Langran & L. Archambault (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 1236-1241). Online, United States: Association for the Advancement of Computing in Education (AACE). Retrieved May 18, 2021 from https://www.learntechlib.org/primary/p/219280/.

10. *Pan, Z., Li, C.*, & **Liu**, M. (2020). Learning analytics dashboard for problem-based learning. In *Proceedings of the Seventh ACM Conference on Learning@ Scale* (pp. 393-396). Association for Computing Machinery (ACM).

11. **Liu,** M., *Liu*, S., *Pan*, Z., Zou, W., & Li., C (2019). Can Using A Multimedia-Enriched Problem-Based Learning Environment Improve At-Risk Students' Attitude? In S. Carliner (Ed.), *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (pp. 644-649). New Orleans, LA: Association for the Advancement of Computing in Education (AACE).

12. Pan, Z., López, M., & **Liu**, M. (2019). Augmented Reality in the pre-kindergarten classroom—an exploratory study of the effects of an augmented reality book set. In *Proceedings of AECT: Association for Educational Communications and Technology 2019* (pp. 433-440). Association for Educational Communications and Technology (AECT).

13. *Liu*, S., **Liu**, M. *Pan*, Z., *Zou*, W., & *Li*, C. (2019). Examining Science Learning by At-Risk Middle School Students in a Multimedia-Enriched Problem-Based Learning Environment? *Proceedings of 9th International Conference on Learning Analytics & Knowledge (LAK19).* Tempe, AZ.

14. *Kang, J., An, D.*, Yan, L. & **Liu**, M. (2019). Collaborative problem-solving process in a science serious game: Exploring Group Action Similarity Trajectory. *Proceedings of* International conference on Educational Data Mining (pp. 336-341).

15. **Liu**, M., *Pan*, Z., *Pan*, X., *An*, D., *Zou*, W., *Li*, C. & *Shi*, Y. (2018). The Use of Analytics for Educational Purposes: A Review of Literature From 2015 to Present. In *Proceedings*

of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (pp. 372-381). Las Vegas, NV, United States: Association for the Advancement of Computing in Education (AACE). Retrieved October 27, 2018 from https://www.learntechlib.org/primary/p/185002/.

16. **Liu**, M., *Liu*, S., *Pan*, Z. & *Zou*, W. (2018). Promoting Self-Efficacy and Science Learning for All Middle School Students Using A Technology-Enhanced Problem-Based Environment. In Proceedings *of Selected Research and Development Papers at the Association for Educational Communications and Technology (AECT) Convention*. Kansas City, MO.

17. **Liu**, M., *Li*, C. & *Pan*, Z. (2018). Alien Rescue: A 3D Problem-Based Learning Game. In *Proceedings of EdMedia: World Conference on Educational Media and Technology* (pp. 1207-1213). Amsterdam, Netherlands: Association for the Advancement of Computing in Education (AACE). Retrieved July 3, 2018 from https://www.learntechlib.org/primary/p/184329/.

18. **Liu**, M., *Kang*, J., *Pan*, Z., *Zou*, W. & *Lee*, H. (2017). Exploring Data Visualization as an Emerging Analytic Technique. In J. Dron & S. Mishra (Eds.), *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (pp. 1681-1690). Vancouver, British Columbia, Canada: Association for the Advancement of Computing in Education (AACE). Retrieved November 3, 2017 from https://www.learntechlib.org/p/181326/.

19. **Liu**, M., *Pan*, Z. & *Lee*, H. (2017). Using iPads in Instruction: A Case Study. In J. Johnston (Ed.), *Proceedings of EdMedia: World Conference on Educational Media and Technology 2017* (pp. 854-859). Association for the Advancement of Computing in Education (AACE).

20. **Liu**, M., *Willmann*, A., *Fickert*, C. & *Ko*, Y. (2017). Examining Teachers' Use of iPads in Instruction. In P. Resta & S. Smith (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2017*(pp. 1705-1713). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

21. **Liu**, M., *Kang*, J., *Liu*, S., *Zou*, W. & *Hodson*, J. (2016). Learning Analytics as an Assessment Tool in Serious Games: A Review of Literature. In *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2016* (pp. 636-646). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

22. *Horton*, L., **Liu**, M., *Liu*, S., *Kang*, J., *Hodson*, J. & *Zou*, W. (2016). A Multimedia Enriched Problem-Based Learning Environment: Our Research and Development Experiences. In *Proceedings of EdMedia: World Conference on Educational Media and Technology 2016* (pp. 1538-1552). Association for the Advancement of Computing in Education (AACE).

23. **Liu**, M., *McKelroy*, E., Adams, D., Davis, P., Ziai, K. & Burkett, D. (2015). Using Technology to Support Active Learning and Group Collaboration in a Multi-Campus

Environment. In Proceedings of E-Learn: *World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2015* (pp. 1821-1830). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

24. Davis, P., Long, P., Adams, D., Corliss, S., **Liu**, M., *McKelroy*, E., Tothero, K., Walker, J., and Ziai, K. (2016). *Use of Adaptive Learning to Prepare First-Year Pharmacy Students: Our Experience*. Proceeding for **t**he 16th IEEE International Conference on Advanced Learning Technologies - ICALT2016, Austin, TX.

25. **Liu**, M., *Horton*, L., *Lee*, J., *Kang*, J., *Liu*, S., *Myers*, R. & *Maxwell*, A. (2015). Designing a New Media Enhanced Learning Environment: Our Development Model. In S. Carliner, C. Fulford & N. Ostashewski (Eds.), *Proceedings of EdMedia: World Conference on Educational Media and Technology 2015* (pp. 162-172). Association for the Advancement of Computing in Education (AACE).

26. **Liu**, M., *McKelroy*, E., *Winzeler*, E., Adams, D., Davis, P., Ziai, K. & Roberts, R. (2014). Exploration of Best Practices to Support Active Learning in a Synchronous Multi-Site Learning Environment. In T. Bastiaens (Ed.), *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2014* (pp. 1190-1199). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

27. **Liu**, M., *Rosenblum*, J., *Horton*, L. & *Kang*, J. (2014). Using a Game-Based Approach to Design a Rich Media Learning Environment. In *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2014* (pp. 326-338). Chesapeake, VA: AACE.

28. **Liu**, M., *Navarrete*, C., *Maradiegue*, E. & *Wivagg*, J. (2014). Examining How Teachers Use Mobile Devices in Their Teaching: A Multiple-Case Study. In *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2014* (pp. 315-325). Chesapeake, VA: AACE.

29. **Liu**, M, *Horton*, L., *Kang*, J. *Kimmons*, R., and *Lee*, J. J. (2013). Making Learning Fun Through a Ludic Simulation. In Jan Herrington et al. (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2013* (pp. 2535-2545). Chesapeake, VA: AACE.

30. *Kang*, J. & **Liu**, M. (2013). Attributes and Motivation in Game-Based Learning: A Review of the Literature. In Jan Herrington et al. (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2013* pp. 2546-2556). Chesapeake, VA: AACE.

31. **Liu**, M. & *Harvin*, A. (2012). Web 2.0 Use in College Teaching: Undergraduate Students' Levels of Awareness. In T. Amiel & B. Wilson (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2012* (pp. 2279-2285). Chesapeake, VA: AACE.

32. **Liu**, M., *Wivagg*, J., *Maradiegue*, E. & *Navarrete*, C. (2012). Affordances and Challenges of Using iPods to Support Learning by English Language Learners at the Middle School Level: Perspectives from Researchers, Teachers, and Instructional Technologist. In P. Resta (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2012* (pp. 1952-1959). Chesapeake, VA: AACE.

33. *Geurtz*, R., **Liu**, M., *Wivagg*, J., *Lee*, D. & *Chang*, M. (2012). Comparison of Four Implementation Techniques Using the Same Educational Game. In P. Resta (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2012* (pp. 4510-4518). Chesapeake, VA: AACE.

34. *Kimmons*, R., **Liu**, M., *Kang*, J. & *Santana*, L. (2012). Attitude, Achievement, and Gender in a Middle School Science-based Ludic Simulation for Learning. In P. Resta (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2012* (pp. 1891-1898). Chesapeake, VA: AACE.

35. **Liu**, M., *Olmanson*, J., *Anderson*, M. & *Horton*, L. (2011). Web 2.0 in Higher Education: Levels of Awareness and Patterns of Use. In T. Bastiaens & M. Ebner (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2011* (pp. 3082-3092). Chesapeake, VA: AACE.

36. *Santana*, L. & **Liu**, M. (2011). Supporting Teachers' Technology Integration: A Case Study. In T. Bastiaens & M. Ebner (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2011* (pp. 2295-2304). Chesapeake, VA: AACE.

37. **Liu**, M., *Horton*, L., *Kimmons*, R., *Anderson*, M., *Lee*, J., *Rosenblum*, J., *Toprac*, P., *Li*, Y. & *Sung*, W. (2010). The Design and Development of a Media Rich Learning Environment: A Learners-as-Designers model. In *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2010* (pp. 213-222). Chesapeake, VA: AACE.

38. **Liu**, M., *Kalk*, D., *Kinney*, L., *Orr*, G. & *Reid*, M. (2009). Web 2.0 and Its Use in Higher Education: A Review of Literature. In *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2009* (pp. 2871-2880). Chesapeake, VA: AACE.

39. *Horton*, L., **Liu**, M., *Kimmons*, R., *Rosenblum*, J., *Anderson*, M., *Toprac*, P. & *Lee*, J. (2010). An Enabling Architecture for Conducting Design-Based Research. In *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2010* (pp. 3356-3366). Chesapeake, VA: AACE.

40. *Kalk*, D. & **Liu**, M. (2008). Designing an Online Certification Assessment Program to Evaluate Complex Software Engineering Skills. In G. Richards (Ed.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2008* (pp. 1704-1706). Chesapeake, VA: AACE.

41. *Wang*, P. & **Liu**, M. (2008). Supporting Online Knowledge Sharing with an Open-Source Tool in a Graduate Level Course. In G. Richards (Ed.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2008* (pp. 1347-1353). Chesapeake, VA: AACE.

42. **Liu**, M., *Wivagg*, J. *Geurtz*, R., *Lee*, S. T. & *Chang*. M. (2008). *Examining How Teachers Implement A Multimedia Enriched Problem-Based Learning Environment.* In the research paper section of *2008 National Educational Computing Conference* (NECC). (Available online).

43. **Liu**, M., *Horton*, L., *Corliss*, S. B., Svinicki, M. D., *Bogard*, T., *Kim*, J., & *Chang*, M. (2007). *Students' Problem Solving as Mediated by Their Cognitive Tool Use: A Study of Tool Use Patterns*. In C. Montgomerie & J. Seale (Eds.), Proceedings of World Conference on Educational Multimedia and Hypermedia 2007 (pp. 3644-3652). Chesapeake, VA: AACE.

44. *Lee*, S. T., **Liu**, M. & *Chang*, M. (2007). Designing Web Sites for Chinese as a Second Language Learners: A Usability Testing Study. . In C. Montgomerie & J. Seale (Eds.), Proceedings of World Conference on Educational Multimedia and Hypermedia 2007 (pp. 876-880). Chesapeake, VA: AACE

45. **Liu**, M., *Lee*, S. T., *Chang*, H. S, *Trapahgan*, T., & *Horton*, L (2006). *Using a Web Enhanced, Inquiry-Based Learning Module to Increase Cultural Awareness Among Middle School Students*. In P. Kommers & G. Richards (Eds.), Proceedings of World Conference on Educational Multimedia and Hypermedia 2006 (pp. 1408-1415). Chesapeake, VA: AACE.

46. *Shih*, Y. H. & **Liu**, M. (2006). *The Importance of Emotional Usability*. In P. Kommers & G. Richards (Eds.), Proceedings of World Conference on Educational Multimedia and Hypermedia 2006 (pp. 627-634). Chesapeake, VA: AACE.

47. *Anselm*, Y. P. H. & **Liu**, M. (2006). *Engaging Middle School Students as Multimedia Designers: Examining Students' Project Design Skills.* In P. Kommers & G. Richards (Eds.), Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2006 (pp. 2505-2512). Chesapeake, VA: AACE.

48. **Liu**, M. (2005). Motivating Students Through Problem-based Learning. In the research paper section of *2005 National Educational Computing Conference* (NECC) (available online via NECC 05).

49. **Liu**, M., *Bera*, S., *Corliss*, S. & Svinicki, M. (2004). *The Connection Between Cognitive Tool Use and Cognitive Processes In a Problem-Based Hypermedia Learning Environment.* Proceedings of the World Conference on Educational Multimedia & Hypermedia, (1869-1976).

50. **Liu**, M. (2003). *The Effect of A Problem-Based Hypermedia Learning Environment On Sixth Graders' Performance and Attitudes.* Proceedings of the World Conference on Educational Multimedia & Hypermedia, (pp. 842-848).

51. **Liu**, M. & *Bera*, S. (2003). *Understanding the Role of Cognitive Tools Built in a Problem-Based Hypermedia Learning Environment*. Proceedings of the World Conference on Educational Multimedia & Hypermedia, (pp. 2437-2444).

52. **Liu**, M., *Gibby*, S., *Quiros*, O., & *Demps*, E. (2002). The Challenge of Being an Instructional Designer for New Media Development: A View From the Practitioners. In P. Barker & S. Rebelsky. (Eds.) *Educational Multimedia and Hypermedia 2002.* Proceedings of the World Conference on Educational Multimedia & Hypermedia, (pp. 1151-1157).

53. **Liu**, M. & *Hsiao*, Y. P. (2001). Middle School Students as Multimedia Designers: A Project Based Learning Approach. In the research paper section of *2001 proceedings of National Educational Computing Conference* (NECC).

54. **Liu**, M. & *Hsiao*, Y. P. (2001). Middle School Students as Multimedia Designers: A Look at Their Cognitive Skills Development. In C. Montgomerie & J. Viteli. (Eds.) *Educational Multimedia and Hypermedia 2001.* Proceedings of the World Conference on Educational Multimedia & Hypermedia, (pp. 1139-1144).

55. *Williams*, D., **Liu**, M., & Benton, D. (2001). Analysis of Navigation in a Problem-based Learning Environment. In C. Montgomerie & J. Viteli. (Eds.) *Educational Multimedia and Hypermedia 2001.* Proceedings of the World Conference on Educational Multimedia & Hypermedia. (pp. 2052-2057).

56. *Jones*, C. & **Liu**, M. (2001). Web-Based Instruction: The Effect of Design Considerations on Learner Perceptions and Achievement. In C. Montgomerie & J. Viteli. (Eds.) *Educational Multimedia and Hypermedia 2001.* Proceedings of the World Conference on Educational Multimedia & Hypermedia. (pp. 835-840).

57. **Liu**, M, *Papathanasiou*, E., *Hao*, Y., & Kappelman, J. (2000). *Exploring the Use of Virtual Multimedia Examinations in Teaching and Learning: Results from the Fielding Testing.* In R. Heller & J. Bourdeau. (Eds.) *Educational Multimedia and Hypermedia 2000.* Proceedings of the World Conference on Educational Multimedia & Hypermedia.

58. Baker, D., Ezekoye, O., Schmidt, P., *Jones*, C. & **Liu**, M. (2000). *ThermoNet*:: *A Web-Based Learning Resource for Engineering Thermodynamics.* In the proceedings of American Society for Engineering Education (ASEE) Annual Conference 2000.

59. **Liu**, M, *Williams*, D., & *Pedersen*, S. (1999). *The Design and Development of A Hypermedia-Supported Problem-Based Learning Environment.* In B. Collis & R. Oliver (Eds.) *Educational Multimedia and Hypermedia 1999.* Proceedings of the World Conference on Educational Multimedia & Hypermedia (pp.576-580).

60. *Pedersen*, S., *Williams*, D., & **Liu**, M. (1999). *The Effect of Hypermedia Delivered Modeling on Learners' Self-Directed Study During Problem-Based Learning.* In B. Collis & R. Oliver (Eds.) *Educational Multimedia and Hypermedia 1999.* Proceedings of the World Conference on Educational Multimedia & Hypermedia (pp.1212-1213).

61. **Liu**, M. (1998). *Examining Teaching and Learning Aspects of A Web Design Experience*. In T. Ottmann & I. Tomek (Eds.), *Educational Multimedia and Hypermedia 1998*. Proceedings for the World Conference on Educational Multimedia and Hypermedia & World Conference on Educational Telecommunications, 1998.

62. **Liu**, M. & *Pedersen*, S. (1998). *The Effect of Being Hypermedia Designers on Elementary School Students' Learning of Design Knowledge* . In T. Ottmann & I. Tomek (Eds.), *Educational Multimedia and Hypermedia 1998*. Proceedings for the World Conference on Educational Multimedia and Hypermedia & World Conference on Educational Telecommunications, 1998.

63. *Williams*, D. C., *Hemstreet*, S., **Liu**, M., & Smith, V.D. (1998). *Examining How Middle School Students Use Problem-Based Learning Software*. In T. Ottmann & I. Tomek (Eds.), *Educational Multimedia and Hypermedia 1998*. Proceedings for the World Conference on Educational Multimedia and Hypermedia & World Conference on Educational Telecommunications, 1998.

64. **Liu**, M., *Jones*, C., & *Hemstreet*, S. (1997). A study of the multimedia design and production process by the practitioners. In T. Reeves & T. Muldner (Eds.), *Educational Multimedia and Hypermedia 1997* (pp. 634-639). Proceedings for the World Conference on Educational Multimedia and Hypermedia, 1997.

65. **Liu**, M. & *Rutledge*, K. (1996). Engaging High School Students in Multimedia Development. In P. Carlson & F. Makedon (Eds.), *Educational Multimedia and Hypermedia 1996* (pp. 395-400). Proceedings for the World Conference on Educational Multimedia and Hypermedia, 1996.

66. **Liu**, M. & Wheat, J. (1995). Designing Effective Multimedia Kiosks. In H. Maurer (Ed.), *Educational Multimedia and Hypermedia 1995* (pp. 401-406). Proceedings for the World Conference on Educational Multimedia and Hypermedia, 1995.

67. **Liu**, M. (1995). Teaching Multimedia by Providing a Real Life Experience to the Students. In T. Sechrest, M. Thomas, & N. Estes (Eds.), *Leadership for Creating Educational Change: Integrating the Power of Technology* (pp. 343-345). Proceedings for International Conference on Technology and Education (ICTE).

68. **Liu**, M. (1995). Multimedia and Kids: A Study of the Impact of Technology on the Younger Generation. In T. Sechrest, M. Thomas, & N. Estes (Eds.), *Leadership for Creating Educational Change: Integrating the Power of Technology.* Proceedings for International Conference on Technology and Education (ICTE).

69. *Manuel*, M. & **Liu**, M. (1995). Use of Videodisc Technology in Early Childhood Education: Implications for Teacher Training. In D. Willis, B. Robin & J. Willis (Eds.) *Technology and Teacher Education Annual 1995* (pp. 519-523). Proceedings for Six International Conference of Society for Information Technology and Teacher Education.

70. **Liu**, M. (1994). Contextual Enrichment Through Hypermedia Technology: Implications for Second Language Learning. In M. Thomas, T. Sechrest, & N. Estes (Eds.) *Deciding Our Future: Technological Imperatives for Education* (pp. 465-467). Proceedings for International Conference on Technology and Education (ICTE).

71. Reed, W. M., Ayersman, D. J., & **Liu**, M. (1994). Learner characteristics, context-based exposures, and hypermedia theoretical frameworks. *Educational Multimedia and Hypermedia 1994.* Proceedings for the annual conference of Ed Media, 1994.

72. **Liu**, M. (1992). An application of Hypermedia-Assisted-Instruction (HAI) in second language learning. In the Proceedings of the Interactive Multimedia '92 by the Society of the Applied Learning Technology (SALT) (pp. 98-103).

Under Review

Han, S. & **Liu**, M (under review) Advancing Equitable Learning With AI-Supported Chatbots: The Impact of Students' Socioeconomic Factors and Expectations in Real-World MOOCs. *The Internet and Higher Education.*

Han, S. & **Liu**, M (under review) Chatbot Adoption and Its Impact in MOOCs: Examining Socioeconomic Variables, Course Navigational Behaviors, and Completion Rates. *British Journal of Educational Technology.*

Han, S., Shin, J., Han, J. *Cai, Y.* & **Liu**, M. (under review). From Learning Analytics Engagement Indicators to Learning Pathways: Examining Motivation and Instructional Context in a K-12 Science PBL Program. *Education and Information Technologies*.

TEACHING

Graduate level

- *EDC 390 Instructional Systems Design (taught in multiple modes: f-to-f, blended, and fully online)*
- *EDC 385G Interactive Multimedia: Design and Production (taught in multiple modes: f-to-f, blended, and fully online)*
- *EDC 385G Designs and Strategies for New Media (taught both f-to-f and blended versions)*
- *EDC 380R Educational Research and Design (Dept. required course)*
- *EDC 385G Multimedia Authoring*
- *EDC 385G Analysis of Research in Instructional Technology*
- *EDC 396 Instructional Technology Doctoral Seminar*
- *EDC 385G Interactive Multimedia Research*
- *EDC 384P Computer-Assisted-Instruction: Design and Development*
- *EDC 385G HyperCard for Instruction*

Undergraduate level

- *UGS 302 Live, Play, Communicate, and Learn with Digital Media Technologies (taught in multiple modes: f-to-f and fully online)*
- *EDC 344 Digital Literacy for Teaching and Learning (was EDC 371 Computing Tools for Educators)*

Before UT

- *Advanced Software Development: Authorware*
- *Hypermedia in Education*
- *Computer Applications in Education*
- *Software Development using HyperCard*
- *Computer Awareness Module*

ADVISING AND STUDENT-RELATED SERVICE

Dissertation Chair/Co-Chair @UT **-- Completed**
(Total=36: Chair=30; Co-Chair=6)

1. Ying Cai, Learning Technologies 2026 Chair
   • Chinese instructor, Phillips Academy, MA.
2. Peixia Shao, Learning Technologies 2025 Chair
   • Postdoctoral Research Scholar – Evaluation of AI Tools in Higher Education at the Learning Engineering Institute at Arizona State University
3. Audrey Stein Wright, Learning Technologies 2025 Co-Chair
4. Songhee Han, Learning Technologies 2024 Chair
   • Assistant Professor in the Instructional Systems and Learning Technologies program at Florida State University.
5. Ryan Myers, Learning Technologies 2022 Chair
6. Zilong Pan, Learning Technologies 2022 Chair
   • Assistant professor, Lehigh University
7. Kuei-Hui Hsiao, Learning Technologies 2022 Co-Chair
8. Wenting Zou, Learning Technologies 2020 Chair
   • Associate professor, Penn State University
9. Sa Liu, Learning Technologies 2018 Chair
   • Associate professor, Harrisburg University of Science & Technology
10. Jina Kang Learning Technologies 2017 Chair
    • Assistant professor, University of Illinois Urbana-Champaign
11. Cesar Navarrete, Learning Technologies 2015 Chair
12. Jaejin Lee, Learning Technologies 2015 Chair
    • Assistant professor, Korea National University of Education
13. Lance Kinney, Learning Technologies 2015 Chair
    • Executive Director, Texas Board of Professional Engineers, TX
14. Lucas Horton, Learning Technologies 2014 Chair
    • Director Office of Instructional Innovation, COE, UT-Austin
15. Jennifer Wivagg, Learning Technologies 2013 Chair
    • Technology Integration Specialist, Keystone School, San Antonio, TX
16. Justin Olmanson, Instructional Technology 2011 Chair

• Associate Professor, Univ. of Nebraska at Lincoln
17. Minh Pham, Instructional Technology 2010 Chair
• Manager, Chevron
18. PeiYu Wang, Instructional Technology 2010 Chair
• Associate Professor, National Chiayi University, Taiwan
19. Shih-Ting Lee, Instructional Technology 2009 Chair
• Project Manager, Austin Community College
20. Haley Steele, Instructional Technology 2009 Chair
21. Tim Yuen, Instructional Technology 2008 Chair
• Associate Dean and Professor for Undergraduate Studies in the College of Sciences, Univ. of Texas – San Antonio
22. Paul Toprac, Instructional Technology 2008 Chair
• Associate Director & Senior Lecturer, Game Development Program, UT-Austin
23. Vicki De La Garza, Instructional Technology 2006 Chair
24. Sharla Jones, Instructional Technology 2006 Co-Chair
25. Yu-Ping Hsiao, Instructional Technology 2005 Chair
26. Rui Li, Instructional Technology 2005 Chair
• Executive Director, Distance Education & Instructional Design, West Chester University of Pennsylvania
27. Yungwei Hao, Instructional Technology 2004 Chair
• Professor, National Taiwan Normal University
28. Stephan Bera, Educational Psychology 2004 Co-Chair
29. Heather Katz, Instructional Technology 2001 Chair
30. Colleen Jones, Instructional Technology 2000 Chair
• Director, Texas General Land Office and Veteran's Land Board
31. Susan Pedersen, Instructional Technology 2000 Chair
• Associate Professor, Texas A&M
32. June Wilson, Instructional Technology 1999 Chair
33. Doug Williams, Instructional Technology 1999 Chair
• Professor, University of Louisiana at Lafayette
34. Noelle Sweany, Educational Psychology 1999 Co-Chair
• Clinical Professor, Texas A&M
35. Thomas McManus, Instructional Technology 1998 Chair
• Director of Learning, Harrisburg University of Science and Technologies and Professional Development
36. Helen Guillory, French & Italian Department 1998 Co-Chair

Dissertation Committee @ UT -- Completed (Member = 67)

1. Eunhye Grace Ko, Learning Technologies Summer 2024
2. Yi Shi, Learning Technologies, Spring 2022
3. Tracey Naumann, PETE, Spring 2022
4. Jeffrey Colburn, PETE Aug. 2022
5. Yeonhak Jung, PETE/Kinetic Kidz Lab, Spring 2021
6. Laise Santana, Learning Technologies Fall 2020
7. Amenda Willmann, Learning Technologies
8. Ashley Phelps, Physical Education Teacher Education

9. Xiaolu Liu, Physical Education Teacher Education
10. Jihoon Kim, Physical Education Teacher Education
11. Claire Parrish, Foreign Language Education
12. Rob Scordino, Learning Technologies
13. Rulan Shangguan, Physical Education Teacher Education
14. Yujung Ko, Learning Technologies
15. Abe, Kana, Foreign Language Education
16. Renata Guertz, Learning Technologies
17. Marcie Belfi, Special Education
18. Angela Karam, Learning Technologies
19. Jason Rosenblum, Learning Technologies
20. Gregg Orr, Learning Technologies
21. Ji Hyun Park, School of Information
22. Hugh Clevenger Wiese, Rhetorical and Writing
23. PARK, JEONG-BIN, Foreign Language Education
24. MIKYUNG, Shin, Ph.D., Special Education
25. Benjaporn Wattanawaha, Instructional Technology
26. Jeong Won Woo, Instructional Technology
27. Min Gui, Foreign Language Education
28. Filip Zachoval, Slavic Languages
29. Yangjoo Park, Instructional Technology
30. Yueh-hui Chiang, Instructional Technology
31. Homgming Liaw, Instructional Technology
32. Hyeseung Chang, Instructional Technology
33. HaeKyung Lee, Instructional Technology
34. Joe Rowland, Instructional Technology
35. Cathy Thomas, Special Education
36. Gilok Choi, School of Information
37. Seo, You-Jin, Special Education
38. Scott Gibby, Instructional Technology
39. Young Ihn Koh, Foreign Language Education
40. Ondrea Quiros, Instructional Technology
41. Jennifer Dix, Special Education
42. Leah Graham, Foreign Language Education
43. Stephanie Corliss, Educational Psychology
44. Jantrathip Changwatchai, Instructional Technology
45. Dongjoo Lee, Instructional Technology
46. Marie Kaylor, Special Education
47. Kathleen Winston, Music Education
48. Carol Bell, Math Education
49. Greg Jones, Instructional Technology
50. Gail Carmack, Instructional Technology
51. Tim Collins, Foreign Language Education
52. Alan Veach, Curriculum & Instruction
53. Louise Stoher, Germanic Languages
54. Kyung-Sun Kim, School of Library Information Sciences
55. Rebecca Herman, Foreign Language Education
56. Mengping Tsuei, Science Education

57. Yong Suk Kim, Foreign Language Education
58. Lynda Cleveland, Instructional Technology
59. Takashi Suzuki, Foreign Language Education
60. Yoshi Omura, Foreign Language Education
61. Meta Mousseau, Instructional Technology
62. Jay Kunz, Germanic Languages Department
63. Christopher McCormick, Foreign Language Education
64. Dennis Maxey, Instructional Technology
65. Daniel Andersen, English Department
66. Homer Hayes, Instructional Technology
67. Daphne Lin-Hsiao, Instructional Technology

Serving on Doctoral Qualifying Examination Committee Only @ UT --Completed

Jason Harron, Learning Technologies
Anna Bergstrom, Instructional Technology
Karen French, Instructional Technology
Mark Luetzelschwab, Instructional Technology
Courtney Glazer, Instructional Technology
Laurie Williams, Instructional Technology
Linda Abbot, Instructional Technology
Mary Lu Manchachu, Instructional Technology
Candace Figg, Instructional Technology
Mark Christal, Instructional Technology
Jim Jurica, Instructional Technology
Patricia Ross, Instructional Technology
Karen Ferneding, Instructional Technology
David Orshalic, Instructional Technology

Master Thesis/Report Chair @ UT	**-- Completed**	**(Chair=55)**
1. Xiaoyuan Lu, Learning Technologies	2022	Chair
2. Ying Ren, Learning Technologies	2022	Chair
3. Qingyuan Jia Learning Technologies	2022	Chair
4. I-Hui Liou, Learning Technologies	2019	Chair
5. Emily Naul, Learning Technologies	2018	Chair
6. Liuyi Shu, Learning Technologies	2018	Chair
7. Chenglu Li, Learning Technologies	2017	Chair
8. Sukayna Moudgalya, Learning Technologies	2017	Chair
9. Siqi Yi, Learning Technologies	2017	Chair
10. Sara Stamets, Learning Technologies	2016	Chair
11. Caroline Cancelosi, Learning Technologies	2016	Chair
12. Yajun Qiu, Learning Technologies	2016	Chair
13. Peishan Xu, Learning Technologies	2016	Chair
14. Elena Winzeler, Learning Technologies	2016	Chair
15. Mengwen Cao, Learning Technologies	2014	Chair
16. Yiran Li, Learning Technologies	2013	Chair
17. Michael Andersen, Learning Technologies	2012	Chair

18. Jina Kang, Learning Technologies	2012	Chair
19. Erin Maradiegue, Learning Technologies	2012	Chair
20. Janice Rios, Learning Technologies	2012	Chair
21. Yonghan Zhou, Learning Technologies	2012	Chair
22. Yin Li, Instructional Technology	2011	Chair
23. Woonhee Sung, Instructional Technology	2011	Chair
24. Joel Floyd, Foreign Languages Education	2011	Chair
25. Yu-Chi Wen, Instructional Technology	2009	Chair
26. Megan Stevenson, Instructional Technology	2008	Chair
27. Aaron Smith, Instructional Technology	2008	Chair
28. Pete Elam, Instructional Technology	2008	Chair
29. Jeff Peek, Instructional Technology	2008	Chair
30. Blake Grugett, Instructional Technology	2007	Chair
31. Youngjai Lee, Instructional Technology	2007	Chair
32. Yu-Ju Lin, Instructional Technology	2006	Chair
33. Siribang-orn Puttitwong, Instructional Technology	2006	Chair
34. Sheena Y. H. Shih, Instructional Technology	2005	Chair
35. Younyoung Kim, Instructional Technology	2005	Chair
36. Lucas Horton, Instructional Technology	2005	Chair
37. Treavor Bogard, Instructional Technology	2005	Chair
38. Linglingay D. Padolina, Instructional Technology	2004	Chair
39. Adrienne Schmerbeck, Instructional Technology	2002	Chair
40. Anjana Singhal, Instructional Technology	2002	Chair
41. Elaine Bell, Instructional Technology	2002	Chair
42. Myongsu Park, Foreign Languages Education	2001	Chair
43. Tom Ellis, Instructional Technology	2000	Chair
44. Han-Yun Hsiao, Curriculum Studies	2000	Chair
45. Yookyung Bae, Curriculum Studies	2000	Chair
46. Mindy Jackson, Instructional Technology	1999	Chair
47. Erini Papathanasiou, Instructional Technology	1999	Chair
48. Karyn Turnbull, Instructional Technology	1998	Chair
49. Suzanne Rhodes, Instructional Technology	1998	Chair
50. Cheryl Silverstone, Instructional Technology		Chair
51. Barbara Sanchez, Foreign Language Education		Chair
52. Margie Jones, Instructional Technology		Chair
53. Kathy McDaniel, Instructional Technology		Chair
54. Heidi Whitus, Foreign Language Education		Chair
55. Monique Manuel, Instructional Technology		Chair

Master Thesis/Report -- Completed @ UT (Member= 7)

1. Hye Jin Kang, Learning Technologies	2026	Member
2. Bowen Zheng, Learning Technologies	Fall 2024	Member
3. Ying Ma, Learning Technologies	2019	Member
4. Alexia Mercado, Learning Technologies	2018	Member
5. Amy Maxwell, Learning Technologies	2015	Member
6. John Johnson, Learning Technologies	2015	Member
7. Hemangini Dutt Majumder, Instructional Technology		Member

Individualized Instruction @UT

2025-2026:
Independent Study: 3 hours (1 student)

2024-2025:
Graduate level
Internship: 9 hours (3 students)

2023-2024:
Directed Research: 25 hours (4 students)
Independent Study: 3 hours (1 students)

2022-2023:
Graduate level
Directed Research: 28 hours (6 students)
Internship: 3 hours (1 students)

2021-2022:
Graduate level
Directed Research: 24 hours (7 students)
Independent Study: 3 hours (1 students)
Internship: 9 hours (3 students)

2020-2021:
Directed Research: 27 hours (9 students)
Independent Study: 7 hours (3 students)

2019-2020:
Directed Research: 6 hours (2 students)
Independent Study: 5 hours (3 students)

2018-2019:
Directed Research: 18 hours (6 students)
Independent Study: 9 hours (3 students)
Graduate Internship: 9 hours (3 students)

2017-2018:
Directed Research: 12 hours (4 students)
Independent Study: 24 hours (6 students)
Graduate Internship: 12 hours (4 students)
Supervision Teaching: 3 hours (1 student)

2016-2017:
Directed Research: 6 hours (2 students)
Independent Study: 12 hours (4 students)
Graduate Internship: 21 hours (7 students)

Supervision Teaching: 3 hours (1 student)

2015-2016:

Graduate level

Directed Research: 21 hours (7 students)
Independent Study: 30 hours (10 students)

Undergraduate level:

Undergraduate Connecting Rsrch Experience: 3 hours (1 student)

2014-2015:

Graduate level

Directed Research: 18 hours (6 students)
Independent Study: 15 hours (5 students)
Graduate Internship: 15 hours (4 students)

Undergraduate level:

Undergraduate Research: 3 hours (1 student)

2013-2014:

Graduate level

Directed Research: 21 hours (7 students)
Independent Study: 3 hours (1 student)
Graduate Internship: 6 hours (2 students)

Undergraduate level:

Undergraduate Internship: 3 hours (1 student)

2012-2013:

Directed Research: 21 hours (7 students)
Independent Study: 18 hours (6 students)
Graduate Internship: 6 hours (2 students)

2011-2012:

Directed Research: 30 hours (10 students)
Independent Study: 22 hours (8 students)

2010-2011:

Directed Research: 27 hours (9 students)
Independent Study: 14 hours (6 students)

2009-2010:

Directed Research: 16 hours (6 students)
Independent Study: 25 hours (9 students)

2008-2009:

Directed Research: 3 hours (1 students)
Independent Study: 16 hours (6 students)

Graduate Internship: 3 hours (1 student)

2007-2008:
Directed Research: 30 hours (10 students)
Independent Study: 39 hours (13 students)
Graduate Internship: 3 hours (1 student)

2006-2007:
Directed Research: 15 hours (5 students)
Independent Study: 24 hours (8 students)
Graduate Internship: 3 hours (1 student)

2005-2006:
Directed Research: 27 hours (9 students)
Independent Study: 24 hours (8 students)
Graduate Internship: 3 hours (1 students)

2004-2005:
Directed Research: 6 hours (2 students)
Independent Study: 22 hours (8 students)

2003-2004:
Directed Research: 6 hours (2 students)
Independent Study: 13 hours (5 students)

2002-2003:
Directed Research: 15 hours (5 students)
Independent Study: 16 hours (6 students)
Graduate Internship: 3 hours (1 students)

2001-2002:
Directed Research: 9 hours (3 students)
Independent Study: 20 hours (8 students)

2000-2001:
Directed Research: 21 hours (7 students)
Independent Study: 12 hours (4 students)
Graduate Internship: 12 hours (4 students)

1999-2000:
Directed Research: 3 hours (1 students)
Independent Study: 8 hours (4 students)
Graduate Internship: 9 hours (3 students)

PRESENTATIONS

International/National Conferences **(Competitively Selected)**

(Italic indicates co-authors are current students OR current students at the time and since graduated) ***Involving students in my research reflects my efforts of mentoring***

2025-2026

Han, S.& **Liu**, M. (2026). MOOC Chatbot Adoption and Learning Outcomes: Students' Socioeconomic Regions and Navigational Behaviors**.** Paper presented at AERA 2026.

Han, S.& **Liu**, M. (2026). Demographic Factors and Equity in AI-Supported Learning: A Mixed-Methods Study of Chatbot Use in MOOCs**.** Paper presented at AERA 2026.

Liu, M. (2025). Supporting Teachers' Implementation of Technology-Enriched PBL: What Research Tells Us. Presented at *the annual conference of ISTELive 25,* San Antonio, TX.

Han, S, **Liu, M.** *Cai, Y.*, & *Shao, P*. (2025). *Cognitive Engagement in Science PBL for Diverse Middle Schoolers: Examining the Role of Need for Cognition, Motivation, and Learning Outcomes*. Paper presented at 2025 Association for Educational Communications and Technology **(**AECT) Convention, Las Vegas, NV.

2024-2025

Liu, M., *Han*, S*., Shao*, P. & *Cai*, Y. (2025). *Does Need for Cognition Determine Success in Science Problem-Based Learning: Analyzing Middle School Students' Performance***.** Paper presented at AERA 2025. **Won the 2025 AERA Instructional Technology SIG-Best Paper Award.**

Cai, Y, *Shao*, P., *Han*, S. & **Liu**, M. (2024, Oct.). *Analyzing Middle School Students' Performance in a Multimedia-Enriched Problem-Based Learning Program Through Learning Analytics*. Paper presented at 2024 Association for Educational Communications and Technology **(**AECT) Convention, Kansas City, MO.

2023-2024

Liu, **M**., *Cai*, Y., *Han*, S*. & Shao*, P. (2024). *Understanding Middle School Students' Self-Efficacy in a Technology-Enriched Problem-Based Learning Program: A Learning Analytics Approach*. Paper presented at AERA 2024. **Nominated for the 2024 AERA IT SIG- Best Paper Award.**

Han, S., & **Liu**, **M**. (2024). *Equity-Centered Design: The Process of developing a Chatbot Curriculum for massive open online courses.* Paper presented at AERA 2024.

Han, S., Ji, H., Jung, J., Lee, U., & **Liu**, **M**. (2024). *Learning Sentiments: A Multifaceted Examination of Chatbot Interactions in Massive Open Online Courses*. Paper presented at AERA 2024.

Cai, Y. **Liu**, **M**., *Han*, S. & *Shao*, P. (2023, Nov.). *Investigating students' navigation patterns in a digital educational game*. Paper presented at 2023 Association for

Educational Communications and Technology **(**AECT) Convention, AECT 100: Reflections and Transformations, Orlando, Fl.

Shao, P., Meng, C., *Pan*, Z & **Liu**, **M**. (2023, Nov.). *Investigate pre-service teachers' learning behaviors and their relationship with academic performance through LMS log data*. Paper presented at 2023 Association for Educational Communications and Technology **(**AECT) Convention, AECT 100: Reflections and Transformations, Orlando, Fl.

2022-2023

Liu, M. (2023). *Supporting K-12 Teachers to Implement Problem-Based Learning in Their Classrooms Through a Dashboard*. In E. Langran (Ed.), Paper presented at the annual international conference of Society for Information Technology & Teacher Education (SITE) by Association for the Advancement of Computing in Education (AACE). New Orleans, LA.

Liu, M., *Cai*, Y., *Han*, S. *& Shao*, P. (2023, April). *Examining Students' Navigation Patterns in Game-Based Learning Using Learning Analytics*. Paper presented at AERA 2023 Conference. Chicago., IL.

Han, S. *Cai*, Y., *Shao*, P. & **Liu**, M. (2023, A*pril*). Scale Development to Measure Students' Learning Experiences with Knowledge-Based Chatbots in Massive Open Online Courses. Paper presented at AERA 2023 Conference. Chicago., IL.

Shao, P., *Cai*, Y., *Pan*, Z., *Han*, S. *&* **Liu**, M. (2023, April). *Exploring the Effects of Learning Analytics Dashboards on Learning Outcomes: A Meta-Analysis*. Paper presented at AERA 2023 Conference. Chicago., IL.

HAN, S., JI, H., JIANG, Z., MICHAEL WEST, M., AND **LIU**, M. (2023) *What do students want to know while taking massive open online courses? Examining massive open online course students' needs based on online forum discussions from a Universal Design for Learning approach*. Paper presented at the 13th International Conference on Learning Analytics and Knowledge (LAK23).

Han, S., Jung, J., Ji, H., Lee, U., & **Liu**, M. (2023). *The role of social presence in MOOC students' behavioral intentions and sentiments to use a learning assistant chatbot: From a diversity, equity, and inclusion perspective*. Paper presented at the International Conference on Artificial Intelligence in Education 2023 (AIED2023). Tokyo, Japan.

Cai, Y. **Liu**, M., *Han*, S. & *Shao*, P. (2022, Nov.). *Analyzing learners' navigation patterns in a science educational game through clustering analyses*. Paper presented at 2022 Association for Educational Communications and Technology **(**AECT) Convention, 'Impacting Student Learning,' Las Vegas, NV.

Han, S. *Cai*, Y., *Shao*, P. & **Liu**, M. (2022, Nov.). *Students' Experiences with Knowledge-Oriented Chatbots: A Systematic Focused Review from 2012 to Present*.

Paper presented at 2022 Association for Educational Communications and Technology **(**AECT) Convention, 'Impacting Student Learning,' Las Vegas, Oct.

Pan, Z. & **Liu**, M. (2022). *Theory-Informed Problem-Solving Sequential Pattern Visualization*. EDM 2022: The Fifteenth International Conference on Educational Data Mining): Virtual conference, Durham, UK

2021-2022

Liu, M., *Han*, S., *Shao*, P., *Cai*, Y., & *Pan*, Z. (2021, Nov.). *The Current Landscape of Research and Practice on Visualizations and Dashboard for Learning Analytics*. Paper presented at International Convention *of Association for Educational Communications and Technology (AECT)*, Homecoming (Homestaying): A Return to Learning through Innovation.

Liu, M., *Pan*, Z., Cai, Y., *Shao*, P., & *Han*, S. (2022, April). *The Effect of Multimedia-Enriched Problem-Based Learning on Socioeconomically Disadvantaged Middle School Students' Science Learning*. Paper presented at AERA 2022 Hybrid Conference.

Han. S., **Liu**, M., *Pan*, Z., Cai, Y., & *Shao*, P. (2022, April). *Making Chatbots More Inclusive: Addressing Challenges of Non-Native English Speakers with New Technology in MOOCs*. Paper presented at AERA 2022 Hybrid Conference.

Pan, Z., *Han. S.,* Cai, Y., *Shao*, P., *Li*, C & **Liu**, M. (2022, April). *The role of learning analytics scaffolding system in middle school science problem-based learning activities*. Paper presented at AERA 2022 Hybrid Conference.

Pan, Z. & **Liu**, M. (2022, March). *The effects of learning analytics hint system in supporting students problem-solving*. Paper presented at the 12th International Conference on Learning Analytics and Knowledge (LAK'22) online.

Han, S. & **Liu**, M. (2022, July). *Developing an Inclusive FAQ Chatbot in Massive Open Online Courses.* Presented at AIED 2022: The 23rd International Conference on Artificial Intelligence in Education, 27-31 July, Durham University, UK.

2020-2021

Liu, M., *Li*, C., *Pan*, Z. & *Pan*, X. (2021, April). *Using Learning Analytics to Understand How to Design Effective Digital Educational Games*. Paper presented at AERA 2021 Virtual Conference.

Liu, M., *Pan*, Z., *Li*, C., *Han*, S., *Shi*, Y. & *Pan*, X. (2020). *Using Learning Analytics to Support Teaching and Learning in Higher Education: A Systematic Focused Review of Journal Publications from 2016 to Present.* Presented at Innovate Learning Summit (Formerly E-Learn World Conference). Online Conference, November.

Liu, S & **Liu**, M. (2021, April) *Examining Learner Metacognition and Goal Orientation While Problem-solving in a Serious Game Environment*, Paper presented at AERA 2021 Virtual Conference.

Han, S**,** *Pan*, Z. & **Liu**, M. (2021, April). *Mass Customization for the Efficient Development of MOOCs: A Case Study*. Paper presented at AERA 2021 Virtual Conference.

Han, S & **Liu**, M. (2021). *Teaching Teachers to Zoom: Empowering Teachers through a Professional Development Program and Virtual Learning Community*. Paper presented at 2021 SITE Virtual Convention.

Pan, Z., *Li*, C., *Zou*, W. & **Liu**, M. (2021, April). *The development of an automatic text classifier enhanced dashboard in supporting teacher's facilitation of virtual problem-based learning activities.* Paper presented at AERA 2021 Virtual Conference.

Han, S. & **Liu**, M. (2020, Nov.). *A Foreign Language School Going Online (Case Study).* Paper presented at 2020 AECT Virtual Convention, *Towards Culturally-Situated Learning Design and Research.*

2019-2020

Liu, M., *Shi*, Y., *Pan*, Z., *Li*, C., & *Pan*, X (2020, April 17-21). W*hat Motivates Middle School Teachers to Adopt A Technology-Enriched Problem-Based Learning Program in Their Classrooms* [Paper session]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/yy26tqvm (Conference Canceled)

Liu, M., *Zou*, W., *Li*, C., *Shi*, Y. *Pan*, Z. & *Pan*, X (2020, April 17-21). *Examining relationships between MOOC participants' usage data and their profiles and perceptions through learning analytics* [Poster session]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/yy26tqvm (Conference Canceled)

Zou, W. Shi, Y., Li, C., & **Liu**, M. (2020, April 17-21). *Examining learners' social presence in relation to their engagement in social interactions in MOOC forums* [Paper session]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/yy26tqvm (Conference Canceled)

Pan, *Z.* & **Liu**, M. (2020, April 17-21). *Problem-solving Along the Way* [Structured Poster Session]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/y436mpxp (Conference Canceled)

Pan, Z., Lopez, M. F., & **Liu**, M. (2020, April 17-21). *The Impact of Integrating Augmented Reality in pre-kindergarten classrooms* [Structured Poster session]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/yy26tqvm (Conference Canceled)

Pan, Z., Li, C. & **Liu**, M. (2020). *Learning Analytics Dashboard for Problem-based Learning.* Presented at annual meeting of Learning at Scale 2020, Atlanta, GA, Aug.

Liu, M., *Liu*, S., *Pan*, Z., *Zou*, W., & *Li*, C. (2019). *Can Using A Multimedia-Enriched Problem-Based Learning Environment Improve At-Risk Students' Attitude*? Presented at World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (eLearn). New Orleans, LA, November.

2018-2019

Liu, M., *Pan*, Z., *Pan*, X. *An*, D., Zou, W., *Li*, C., & *Shi*, Y. (2018). *The Use of Analytics for Educational Purposes: A Review of Literature From 2015 to Present.* Presented at World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (eLearn), Las Vegas, NV, October.

Liu, M., *Liu*, S., *Pan*, Z. & *Zou*, W. (2018). *Promoting Self-Efficacy and Science Learning for All Middle School Students Using A Technology-Enhanced Problem-Based Environment*. Presented *at the Association for Educational Communications and Technology (AECT) Convention*. Kansas City, MO, October.

Liu, M., *Zou*, W., *Shi*, Y., *Pan*, Z., & *Li*, C. (2019). *What Do Participants Think of Today's MOOCs Designed for Working Professionals.* Presented at annual meeting of American Educational Research Association (AERA), Toronto, CA, April.

Shu, L. & **Liu,** M. (2019). *Student Engagement in Game-Based Learning: A Literature Review from 2008 to 2018.* Presented at annual meeting of American Educational Research Association (AERA), Toronto, CA, April.

Zou, W., **Liu,** M., & *Pan*, Z. (2019). *Understanding the behavioral patterns of learners with different levels of prior knowledge in adaptive learning.* Presented at annual meeting of American Educational Research Association (AERA), Toronto, CA, April.

Kang, J., An, D., Yan, L. & **Liu**, M. (2019). *Collaborative problem-solving process in a science serious game: Exploring Group Action Similarity Trajectory*. Presented at International conference on Educational Data Mining, Montréal, Canada, July.

Liu, S., **Liu**, M. *Pan*, Z., *Zou*, W., & *Li*, C. (2019). Examining Science Learning by At-Risk Middle School Students in a Multimedia-Enriched Problem-Based Learning Environment? *Proceedings of 9th International Conference on Learning Analytics & Knowledge (LAK19).* Tempe, AZ, March.

2017-2018

Liu, M., *Kang*, J., *Zou*, W., *Lee*, H., *Pan*, Z., & *Corliss*, S. (2018). *Using Data to Understand How to Better Design Adaptive Learning.* Presented at annual meeting of American Educational Research Association (AERA), NYC, NY, April.

Kang, J. & **Liu**, M. (2018). *Examining Scientific Inquiry Behaviors and Learner Performance in a Serious Game.* Presented at annual meeting of American Educational Research Association (AERA), NYC, NY, April.

Liu, M., *Li*, C. & *Pan*, Z. (2018). Alien Rescue: A 3D Problem-Based Learning Game. Presented at *World Conference on Educational Media and Technology (EdMedia)*, Amsterdam, Netherlands, June.

Liu, S. & **Liu**, M. (2018). Using Log Data and Similarity Measure in Analyzing Learner Problem-solving Behaviors in a Serious Game: An Exploratory Study. Presented at the

annual conference *by* *Society for Information Technology and Teacher Education* *(*SITE*)*, Washington DC, March.

Liu, M., *Kang*, J., *Pan*, Z., *Zou*, W. & *Lee*, H. (2017). *Exploring Data Visualization as an Emerging Analytic Technique*. Presented at *E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education*. Vancouver, British Columbia, Canada, October.

2016-2017

Liu, M., *McKelroy*, *Corliss*, S., & *Carrigan*, J. (2017). *Investigating The Effect of An Adaptive Learning Intervention on Students' Learning*. Presented at annual meeting of American Educational Research Association (AERA), San Antonio, TX, April.

Liu, M., *Ko*, Y., *Fickert*, C., & *Willmann*, A. (2017). *Understanding Teachers' Use of iPads in Instruction: Examining The Role of Professional Development*. Presented at annual meeting of American Educational Research Association (AERA), San Antonio, TX, April.

Kang, J., **Liu**, M., & *Qu*, W. (2017). *Using Gameplay Data to Examine Learning Behavior Patterns in a Serious Game*. Presented at annual meeting of American Educational Research Association (AERA), San Antonio, TX, April.

Liu, M., *Pan*, Z. & *Lee*, H. (2017). Using iPads in Instruction: A Case Study. Presented at *EdMedia: World Conference on Educational Media and Technology (*EdMedia*)*, Washington DC, June.

Liu, M., *Willmann*, A., *Fickert*, C. & *Ko*, Y. (2017). *Examining Teachers' Use of iPads in Instruction*. Presented at the annual conference by Society for Information Technology & Teacher Education International Conference (SITE). Austin, TX. March.

Liu, M., *Kang*, J., *Liu*, S., *Zou*, W., & *Hodson*, J. (2016). *Learning Analytics as an Assessment Tool in Serious Games: A Review of Literature.* Presented at the annual conference of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (E-Learn). Washington DC, Oct.

2015-2016

Liu, M., *Lee*, J., *Kang*, J., & *Liu*, S. (2016). *A Multiple-Case Study Examining Behavior Patterns By Students With Different Characteristics In a Serious Game*. Presented at annual meeting of American Educational Research Association (AERA), Washington DC, April.

Liu, M., *Kang*, J., *McKelroy*, E., *Harron*, J., & *Liu*, S. (2016). *Investigating Students' Interactions with Discussion Forums, Facebook, and Twitter in a MOOC and Their Perceptions*. Presented at annual meeting of American Educational Research Association (AERA), Washington DC, April.

Kang, J., & **Liu**, M. (2016). *Examining Students' Learning Behaviors during the Problem Solving Process in A Serious Game: A Prediction Study.* Presented at annual meeting of American Educational Research Association (AERA), Washington DC, April.

Liu, M., *McKelroy*, E., Adams, D., Davis, P., Ziai, K. & Burkett, D. (2015). *Using Technology to Support Active Learning and Group Collaboration in a Multi-Campus Environment*. Presented at the annual conference of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (E-Learn). Kona, HI, Oct.

Horton, L., **Liu**, M., *Liu*, S., *Kang*, J., *Hodson*, J. & *Zou*, W. (2016). A Multimedia Enriched Problem-Based Learning Environment: Our Research and Development Experiences. Presented at the annual conference of *World Conference on Educational Media and Technology (EdMedia), Vancouver, Canada, June.*

Liu, M., *McKelroy*, E., *Kang*, J. *Harron*, J., & *Liu*, S. (2015). *Examining the Use of Facebook and Twitter as an additional social space in a MOOC*. Presented at the annual conference of Association for Educational Communication and Technology (AECT), Indianapolis, IN, November.

Davis, P., Long, P., Adams, D., Corliss, S., **Liu**, M., *McKelroy*, E., Tothero, K., Walker, J., and Ziai, K. (2016). *Use of Adaptive Learning to Prepare First-Year Pharmacy Students: Our Experience*. Presented at the 16th IEEE International Conference on Advanced Learning Technologies - ICALT2016, Austin, TX, July.
(Note: 3rd to 7th authors are listed alphabetically.)

2014-2015

Liu, M., *Kang*, J., Lee, J., Winzeler, E., & Liu, S. (2015). Exploring How Learners Use a Serious Game for Middle School Science Through Visualization. Presented at annual meeting of *American Educational Research Association* (AERA), Chicago, IL, April.

Liu, M., *Horton*, L., *Lee*, J., *Kang*, J., *Liu*, S., *Myers*, R. & *Maxwell*, A. (2015). Designing a New Media Enhanced Learning Environment: Our Development Model. Presented at *EdMedia: World Conference on Educational Media and Technology*, Montreal, Quebec, Canada, June.

Liu, M., *Myers*, R., *Harron*, J. (2015). Motivating Students to Learn Science Using A Game-Based Learning Approach. Presented at *the annual conference of isteconference.org,* Philadelphia, PA, June.

Kang, J., ***Liu***, S., & Liu, M. (2014). Tracking Students' Activities in Serious Games Presented at the *Learning and Knowledge Analytics in Open Education* (LKAOE) conference sponsored by *Association for Educational Communication and Technology* (AECT), Shanghai, China, June.

Liu, M., *McKelroy*, E., *Winzeler*, E. Adams, D., Davis, P., Ziai, K., & Roberts, R. (2014). Exploration of Best Practices to Support Active Learning in a Synchronous Multi-Site Learning Environment. Presented at *World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (eLearn), New Orleans, LA, October.

Liu, M., *Kang*, J., *Cao*, M., *Lim*, M., *Myers*, R. & *Ko*, Y. (2014). Understanding Learners' Perspective of Taking a MOOC. Presented at the annual conference of *Association for Educational Communication and Technology* (AECT), Jacksonville, FL, November.

2013-2014

Liu, M., *Scordino*, R. *Geurtz*, R., *Navarrete*, C., *Ko*, Y. and *Lim*, M. (2014). A Look at Research on Mobile Learning in K-12 Education From 2007 to Present. Presented at annual meeting of *American Educational Research Association* (AERA), Philadelphia, PA, April.

Liu, M., *Navarrete*, C., *Scordino*, R. *Kang*, J., *Ko*, Y. and *Lim*, M. (2014). Examining Teachers' Use of iPads: Comfort Level, Perception, and Use. Presented at annual meeting of *American Educational Research Association* (AERA), Philadelphia, PA, April.

Liu, M., *Rosenblum*, J. A., *Horton*, L., & *Kang*, J. (2014). Using a Game-Based Approach to Design a Rich Media Learning Environment. Presented at *the World Conference on Media and Technology (EdMedia),* Tampere, Finland, June.

Liu, M., *Navarrete*, C., *Maradiegue*, E., and *Wivagg*, J. (2014). Examining How Teachers Use Mobile Devices in Their Teaching: A Multiple-Case Study. Presented at *the World Conference on Media and Technology (EdMedia),* Tampere, Finland, June.

Liu, M., *Kang*, J. *Cao*, M. W., *Lim*, M., *Ko*, Y., & Schmitz Weiss, A. (2013). *Understanding MOOCs as an Emerging Online Learning Tool: Perspectives From the Students.* Presented at World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education (eLearn), Las Vegas, October.

Bogard, T., Liu, M., *Chiang*, Y. (2013). Thresholds of knowledge development in complex problem solving: a multiple-case study of advanced learners' cognitive processes. Presented at the annual conference of *Association for Educational Communication and Technology* (AECT), Anaheim, CA, October.

Horton, L., Liu, M., and *Lee*, J. (2013). *Alien Rescue: Its Development model.* Presented at the annual meeting of the AECT International Convention, Anaheim, CA, October.

2012-2013

Liu, M., *Geurtz*, R, *Karam*, A., *Navarrete*, C. and *Scordino*, R. (2013). Research on Mobile Learning in Adult Education: A Literature Review From 2005 to the Present. Presented at annual meeting of *American Educational Research Association* (AERA), San Francisco, CA, April.

Liu, M., *Horton*, L., *Kang*, J., *Kimmons*, R. and *Lee*, J. (2013). Making Learning Fun Through a Ludic Simulation. Presented at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications (EdMedia),* Victoria, BC, Canada.

Liu, M., *Parrish*, C., *Park*, J. B., *Abe*, K., *Cao*, M. W., *Liu*, S. & Us*Lu*, D. (2013). An

Analysis of Social Networking Language Learning Websites: Implications for ESL Teaching and Learning. Presented at the annual conference by *Computer-Assisted Language Instruction Consortium (CALICO),* Honolulu, Hawaii. May.

Liu, M., *Park*, J. B., *Parrish*, C., *Evans*, M., *Lee*, S., and *McCrory*, M. (2013). Examining Social Networking Language Learning Websites for College ESL Students. Presented at *2013 TESOL International Convention & English Language Expo*, Dallas, TX.

Navarrete, C. C., **Liu**, M., *Maradiegue*, E., and *Wivagg*, J. (2013) iPod Use for English Language Learning: A Multiple-Case Study. Presented at annual meeting of *American Educational Research Association* (AERA), San Francisco, CA, April.

Horton L., **Liu**, M., *Lee*, J., *O'Hair*, M., *Kang*, J., *Rosenblum*, J., and *Lu*, C. W. (2012). Alien Rescue: A Multimedia Problem-Based Learning Program
For Middle School Science. Presented at the annual conference of *Association for Educational Communication and Technology* (AECT), Louisville, KY, October.

Navarrete, C. C., **Liu**, M., *Maradiegue*, E., & *Wivagg*, J. (2012) iPod Touch and English Language Learners: A Case Study of Using iPod Touch Devices. Presented at the annual conference of *Association for Educational Communication and Technology* (AECT), Louisville, KY, October.

Kang, J., & **Liu**, M. (2013). Attributes and Motivation in Game-Based Learning: A Review of the Literature. Presented at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications (EdMedia),* Victoria, BC, Canada.

2011-2012

Liu, M. & *Harvin*, A. (2012). Web 2.0 Use in College Teaching: Undergraduate Students' Levels of Awareness. Presented at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications (EdMedia),* Denver, June.

Bogard, T., *Chiang*, Y. H & **Liu**, M. (2012). Examining Learners' Cognitive Processes as They Interact With Cognitive Tools in a Technology Enhanced Learning Environment. Presented at annual meeting of *American Educational Research Association* (AERA), Vancouver, CA, April.

Liu, M. *Wivagg*, J. *Maradiegue*, E., and *Navarrete*, C. C. (2012). Affordances and Challenges of Using iPods to Support Learning by English Language Learners at the Middle School Level: Perspectives from Researchers, Teachers, and Instructional Technologist. Presented at the annual conference by *Society for Information Technology and Teacher Education (*SITE)*,* Austin, March.

Navarrete, C. C., **Liu**, M., *Maradiegue*, E., & *Wivagg*, J. (2012) iPod Touch and English Language Learners: A Case Study of Using iPod Touch Devices. Presented at the annual conference of *Association for Educational Communication and Technology* (AECT), Louisville, KY, October.

Geurtz, R., **Liu**, M., *Wivagg*, J., *Lee*, S. T., & *Chang*, M. (2012). Comparison of Four Implementation Techniques Using the Same Educational Game. Presented *at the annual conference by Society for Information Technology and Teacher Education (*SITE*),* Austin, March.

Kimmons, R., **Liu**, M. *Kang*, J. & *Santana*, L. (2012). Attitude, Achievement, and Gender in a Middle School Science-based Ludic Simulation for Learning. Presented at the annual conference by *Society for Information Technology and Teacher Education (*SITE*),* Austin, March.

Navarrete, C. C., **Liu**, M., *Maradiegue*, E., & *Wivagg*, J. (2012). Using iPods for Learning with middle school ELL students: Lessons learned for Mobile Learning Forum. Presented at *International Society for Technology in Education* (ISTE) 2012 Conference, San Diego, CA, June.

Park, J. H. & **Liu**, M. (2012). Multitasking in e-Learning Environments: Users' Multitasking Strategies and Design Implications. Presented at The ACM SIGCHI Conference on Human Factors in Computing Systems, a premier international conference on human-computer interaction, May.

Kinney, L., **Liu**, M. & Thorton, M. (2012). Faculty and Student Perceptions Of Online Learning in Engineering Education. Presented at Annual Conference of American Society for Engineering Education (ASEE), San Antonio, TX, June.

2010-2011

Liu, M., *Horton*, L., *Olmanson*, J. & *Toprac*, P. (2011). Motivational Multimedia: Examining Students' Learning and Motivation as They Use a Multimedia Enriched Learning Environment. Presented at annual meeting of *American Educational Research Association* (AERA), New Orleans, LA.

Horton, L. **Liu**, M. *Olmanson*, J. & *Toprac*, P. (2011). Engaging Learners through Interactive Media: Findings and Implications from a Technology Enhanced Problem-based Learning Environment. Presented at annual meeting of *American Educational Research Association* (AERA), New Orleans, LA.

Liu, M., *Olmanson*, J., *Anderson*, M., & *Horton*, L. (2011). Web 2.0 in Higher Education: Levels of Awareness and Patterns of Use. Presented at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications,* Lisbon, June.

Liu, M. (2011). Quantitative research, qualitative research, and mixed methods: Which one to use? Presented for the Graduate students Stream at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications,* Lisbon, June.

Liu, M. (2011). Avoid possible pitfalls and be successful in your dissertation journey. Presented for the Graduate students Stream at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications,* Lisbon, June.

Santana, L. & **Liu**, M. (2011). Supporting Teachers' Technology Integration: A Case Study. Presented at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications,* Lisbon, June.

Yuen, T., & **Liu**, M. (2010). *How interactive multimedia authoring transforms object-oriented thinking* Paper presented at the The 41st ACM Technical Symposium on Computer Science Education, Milwaukee, WI.

2009-2010

Liu, M., *Kalk*, D., *Kinney*, L., *Orr*, G. & *Reid*, M. (2009). Web 2.0 and Its Use in Higher Education: A Review of Literature. Presented at *World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education,* Vancouver, October.

Liu, M., *Horton*, L., *Kimmons*, R., *Anderson*, M., *Lee*, J., *Rosenblum*, J., *Toprac*, P., *Li*, Y. & *Sung*, W. (2010). The Design and Development of a Media Rich Learning Environment: A Learners-as-Designers model. Presented at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications,* Toronto, June.

Liu, M. *Hamilton*, K. & *Wivagg*, J. (2010). *Facilitating Pre-Service Teachers' Understanding of Technology Use With Instructional Activities*, Presented at the annual conference by Society for Information Technology and Teacher Education (SITE), San Diego, March.

Olmanson, J., **Liu**, M., *Wivagg*, J., & *Hamilton*, K. (2010). Launched into outer space yet tethered to earth: PBL science curriculum within middle school milieus. *Understanding Complex Ecologies in a Changing World*. Presented at the 2010 Annual Meeting, Denver, CO: American Educational Research Association, Denver, CO

Horton, L., **Liu**, M., *Kimmons*, R., *Rosenblum*, J., *Anderson*, M., *Toprac*, P. & *Lee*, J. (2010). An Enabling Architecture for Conducting Design-Based Research. Presented at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications,* Toronto, June.

Yuen, T. & **Liu**, M. (2010). *How interactive multimedia authoring transforms object-oriented thinking.* Presented at the 41st ACM Technical Symposium on Computer Science Education (SIGCSE), Milwaukee, WI, March.

2008-2009

Liu, M., *Kalk*, D., *Kinney*, L., *Orr*, G. & *Reid*, M. (2009). Web 2.0 and Its Use in Higher Education: A Review of Literature. Presented at *World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education,* Vancouver, October.

Lee, S. T. & **Liu**, M. (2009). Examining the Relationship of Metacognitive Tasks with High School Students' Development of Critical Thinking in An Online Learning Community**.** . Presented at the annual National Educational Computing Conference (NECC 08), Washington, D.C. June.

Kalk, D. & **Liu**, M. (2008). *Designing an Online Certification Assessment Program to Evaluate Complex Software Engineering Skills.* Presented at World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education, Las Vegas, November.

Wang, P. & **Liu**, M. (2008). *Supporting Online Knowledge Sharing with an Open-Source Tool in a Graduate Level Course*. Presented at World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education, Las Vegas, November.

2007-2008

Liu, M., *Toprac*, P., & *Yuen*, T. (2008). *What factors make a multimedia learning environment engaging: A case study*. Presented at The Annual Conference of American Educational Research Association (AERA), New York City, April.

Liu, M., & *Horton*, L. (2008). *Using Log Data To Study Cognitive Tool Use Patterns: What Can They Tell Us?.* Presented at The Annual Conference of American Educational Research Association (AERA), New York City, April.

Liu, M., *Wivagg*, J. *Geurtz*, R., *Lee*, S. T. & *Chang*. M. (2008). *Examining How Teachers Implement A Multimedia Enriched Problem-Based Learning Environment.* Presented at the annual National Educational Computing Conference (NECC 08), San Antonio, TX, June

2006-2007

Liu, M., *Horton*, L., *Corliss*, S. B., Svinicki, M. D., *Bogard*, T., *Kim*, J., & *Chang*, M. (2007). *Students' Problem Solving as Mediated by Their Cognitive Tool Use: A Study of Tool Use Patterns*. Presented at the World Conference on Educational Multimedia and Hypermedia (Edmedia 07). Vancouver, Canada.

Lee, S. T., **Liu**, M. & *Chang*, M. (2007). Designing Web Sites for Chinese as a Second Language Learners: A Usability Testing Study. Presented at the World Conference on Educational Multimedia and Hypermedia (Edmedia 07). Vancouver, Canada.

Liaw, L., *Wang*, P. Y., **Liu**, M. *Chang*, H. S., *Lee*, S. T., *Horton*, L., & *Traphagan*, T. (2007). *Not Just Sushi: Web-Based Inquiry in Middle School Social Studies*, Presented at the annual National Educational Computing Conference (NECC 07), Atlanta, GA, June.

2005-2006

Liu, M., *Traphagan*, T., *Huh*, J., *Koh*, Y. I., & *Choi*, G., & *McGregor*, A. (2006). *Designing Web Sites for ESL Learners: A Usability Testing Study*. Presented at the annual meeting of CALICO (the Computer Assisted Language Instruction Consortium), Honolulu, HI, May.

Liu, M., *Lee*, S. T., *Chang*, H. S, *Trapahgan*, T., & *Horton*, L (2006). *Using a Web Enhanced, Inquiry-Based Learning Module to Increase Cultural Awareness Among Middle School Students*. Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Orlando, FL, June.

Shih, Y. H. & **Liu**, M. (2006). *The Importance of Emotional Usability*. Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Orlando, FL, June.

Anselm, Y. P. & **Liu**, M. (2006). *Engaging Middle School Students as Multimedia Designers: Examining Students' Project Design Skills*. Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Orlando, FL, June.

Horton, L. **Liu**, M., *Brockmann*, D., *Chang*, H.S., *Gibbs*, I., *Lee*, S. T., & *Traphagan*, T. (2006). *Designing Interactive Multimedia to Promote Cultural Awareness Among Middle School Social Studies Students.* Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Orlando, FL, June.

Ma, Y., *Williams*, D. Richard, C., Prejean, L. & **Liu**, M. (2006). *Integrating Video Games with Problem-Based Learning: A Conceptual Model*. Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Orlando, FL, June.

2004-2005

Liu, M. (2005). *Motivating Students Through Problem-based Learning*. Presented at the annual National Educational Computing Conference (NECC), Philadelphia, PA, June.

Liu, M., Hsieh P. H., Cho, Y., & Schallert, D. L. (2005). *Middle School Students' Self-Efficacy, Attitudes, and Achievement in a Problem-Based Learning Hypermedia Environment*. Presented at The Annual Conference of American Educational Research Association (AERA), Montreal, Canada, April.

Chew, J. & **Liu**, M (2005). *Distance Education: The Promise of A Shrinking World,* Presented at the International Conference on Education, Natural Science, Humanities and Social Science, Lanzhou, China, July.

Hsieh, P. H., *Cho*. Y., **Liu**, M., & Schallert, D. L. (2005*). The relationship of middle school students' goal orientation, self-efficacy, and performance*. Presented at The Annual Conference of American Educational Research Association (AERA), Montreal, Canada, April.

2003-2004

Liu, M., *Bera*, S., *Corliss*, S., & Svinicki, M. (2004). *The Connection Between Cognitive Tool Use and Cognitive Processes In a Problem-Based Hypermedia Learning Environment.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media), Lugano, Switzerland, June.

Bera, S. & **Liu**, M. (2004). *Cognitive Tools and collaboration as mediating factors in a problem-based hypermedia lesson: The role of context.* Presented at The Annual Conference of American Educational Research Association (AERA), San Diego, CA, April.

2002-*2003*

Liu, M. (2003). *The Effect of A Problem-Based Hypermedia Learning Environment*

On Sixth Graders' Performance and Attitudes. Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media), Honolulu, HI, June.

Liu, M. & *Bera*, S. (2003). *Understanding the Role of Cognitive Tools Built in a Problem-Based Hypermedia Learning Environment*. Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media), Honolulu, HI, June.

2001-2002

Liu, M. (2002, invited Speech). *Designing Interactive Multimedia Learning Environments to Support Cognitive Skills Development.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media), Denver, CO, June.

Liu, M., *Gibby*, S., *Quiros*, O., & *Demps*, E. (2002). T*he Challenge of Being an Instructional Designer for New Media Development: A View From the Practitioners.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media), Denver, CO, June.

Liu, M. (2002). *Designing Technology Enhanced Environments to Support Learning of All Students.* Invited panel presentation at The Annual Conference of American Educational Research Association (AERA), New Orleans, LA, April.

Liu, M. (2002). *Supporting Learners' Cognitive Skills Acquisition Through Multimedia Design.* Presented at The Annual Conference of American Educational Research Association (AERA), New Orleans, LA, April.

Pedersen, S. & **Liu**, M. (2002). *Teachers' beliefs about student centered learning: Identifying key issues*. Paper presented at the annual meeting of the Association for Educational Communications and Technology (AECT), Dallas, Texas, November.

2000-2001

Liu, M., & *Hsiao*, Y. P. (2001*). Middle School Students as Multimedia Designers: A Project-Based Learning Approach.* Presented at the annual National Educational Computing Conference (NECC), Chicago, IL, June.

Liu, M., & *Hsiao*, Y. P. (2001*). Middle School Students as Multimedia Designers*: *A look at their cognitive skills development.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media 2001), Tempara, Finland, June.

Pedersen, S., & **Liu**, M. (2001). *The Effects of Computer (use hypermedia/)-Based Expert Modeling During Problem-Based Learning.* Presented at the annual conference of American Educational Research Association (AERA), Seattle, WA, April.

Jones, C. & **Liu**, M. (2001). *Web-Based Instruction: The Effect of Design Considerations on Learner Perceptions and Achievement.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media 2001), Tempara, Finland, June.

Williams, D., **Liu**, M. & Denton, D. (2001). *Analysis of Navigation in a Problem-based Learning Environment.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media 2001), Tempara, Finland, June.

2000

Liu, M, *Papathanasiou*, E., *Hao*, Y., & Kappelman, J. (2000). *Exploring the Use of Virtual Multimedia Examinations in Teaching and Learning: Results from the Fielding Testing.* Presented at the World Conference on Educational Multimedia & Hypermedia (Ed Media 2000), Montreal, Canada, June.

Baker, D., Ezekoye, O., Schmidt, P., *Jones*, C. & **Liu**, M. (2000). *ThermoNet*:: *A Web-Based Learning Resource for Engineering Thermodynamics.* Presented at the Annual Conference of American Society for Engineering Education (ASEE) 2000, St. Louis, MI, June.

1999

Liu, M., *Williams*, D., & *Pedersen*, S. (1999). *The Design and Development of A Hypermedia-Supported Problem-Based Learning Environment*. Presented at the World Conference on Educational Multimedia and Hypermedia (Ed Media 99), Seattle, WA, June.

Pedersen, S., *Williams*, D., & **Liu**, M. (1999). *The Effect of Hypermedia Delivered Modeling on Learners' Self-Directed Study During Problem-Based Learning.* Presented at the World Conference on Educational Multimedia and Hypermedia (Ed Media 99), Seattle, WA, June.

Jones, C., **Liu**, M., Culp, G., & Svinicki, M. (1999). *Multimedia Best Practices for the University-wide System*. Presented at the World Conference on Educational Multimedia and Hypermedia (Ed Media 99), Seattle, WA, June.

Jones, C., **Liu**, M., Schmidt, P., & Ezekoye, O. (1999). *Development of Mechanical Engineering Web-based Instruction*. Presented at the World Conference on Educational Multimedia and Hypermedia (Ed Media 99), Seattle, WA, June.

Williams, D., *Pedersen*, S., & **Liu**, M. (1999). *A hypermedia supported problem-based learning environment: Alien Rescue*. Presented at the International Conference on Mathematics/Science Education and Technology (MSET 99), San Antonio, TX, March.

1998

Liu, M. (1998). *Applying cognitive apprenticeship model in engaging at-risk high school students as multimedia designers*. Presented at the annual conference of American Educational Research Association (AERA), San Diego, April.

Liu, M. (1998). *Effects of learning by designing multimedia projects on at-risk high-school students' motivation.* Presented at the annual conference of American Educational Research Association (AERA), San Diego, April.

Liu, M. (1998). *Examining Teaching and Learning Aspects of A Web Design Experience*. Presented at World Conference on Educational Multimedia and Hypermedia (Ed Media 98), Freiberg, Germany, June.

Liu, M. & *Pedersen*, S. (1998). *The Effect of Being Hypermedia Designers on Elementary School Students' Learning of Design Knowledge*. Presented at World Conference on Educational Multimedia and Hypermedia (Ed Media 98), Freiberg, Germany, June.

Williams, D. C., *Hemstreet*, S., **Liu**, M., & Smith, V.D. (1998). *Examining How Middle School Students Use Problem-Based Learning Software*. Presented at World Conference on Educational Multimedia and Hypermedia (Ed Media 98), Freiberg, Germany, June.

1997

Liu, Min. (1997). *A collaborative learning environment with interactive networked multimedia.* Presented at Sixth International Conference on Telecommunications and Multimedia in Education, Austin TX, November.

Liu, M, *Hemstreet*, S, *Rutledge*, K., Ascue, C., Turner, M. & Schaub A. (1997). *Students as multimedia designers? Perspectives from students, teachers, and researchers*. Presented at Sixth International Conference on Telecommunications and Multimedia in Education, Austin, TX, November.

Liu, M., *Jones*, C., & *Hemstreet*, S. (1997). *A study of the multimedia design and production process by the practitioners*. Presented at the World Conference on Educational Multimedia and Hypermedia (Ed Media 97), Calgary Canada, June.

Liu, M. (1997). *Evaluating the Use of a Multimedia-Based Information Kiosk by University Students.* Presented at the annual conference of World Conference on Educational Multimedia and Hypermedia (ED-Media 97), Calgary, Canada, June.

Liu, M. (1997). *High School Students as Multimedia Designers: An Experience.* Presented at the annual conference of World Conference on Educational Multimedia and Hypermedia (ED-Media 97), Calgary, Canada, June.

Liu, M. (1997). *How to prepare students for the 21st century: An experience.* Presented at the Educational Technology at Work 97 Conference. Seattle, WA. May.

1996

Liu, M. (1996). *Collaborative Learning in Multimedia*. Presented at the World Conference on Educational Multimedia and Hypermedia (Ed Media 96), Boston, MA, June.

Liu, M. & *Rutledge*, K. (1996). *Engaging High School Students in Multimedia Development.* Presented at World Conference on Educational Multimedia and Hypermedia (Ed Media 96), Boston, MA, June.

Liu, M. & Rutledge, K. (1996). *A study of high school students as multimedia designers.* Presented at American Educational Research Association (AERA), New York, NY, April.

Jones, M. & **Liu**, Min (1996). *The design and implementation of a multimedia program* for 2-3 year olds. Presented at International Conference on Technology and Education (ICTE 96), New Orleans, LA, March.

1995

Liu, M. & Wheat, J. (1995). *Designing Effective Multimedia Kiosks.* Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Graz, Austria. June.

Liu, M. (1995). *Teaching Multimedia by Providing a Real Life Experience to the Students.* Presented at the annual meeting of International Conference on Technology and Education (ICTE), Orlando, FL. February-March.

Liu, M. (1995). *Multimedia and Kids: A study of the Impact of Technology on the Younger Generation.* Presented at the annual meeting of International Conference on Technology and Education (ICTE), Orlando, FL. February-March.

Liu, M. (1995). *Designing and Producing College of Education Kiosk: An Experience.* Presented at the national kiosk developers conference. Austin, TX. June.

Manuel, M. & **Liu**, M. (1995). *Use of Videodisc Technology in Early Childhood Education: Implications for Teacher Training.* Presented at the 6th annual conference of Society of Information Technology & Teacher Education (SITE). San Antonio, TX. March.

1994

Reed, W. M., Ayersman, D. J., & **Liu**, M. (1994). *Learner Characteristics, Context-Based Exposures, and Hypermedia Theoretical Frameworks.* Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Vancouver, Canada, June, 1994.

Liu, M. (1994). *Contextual Enrichment Through Hypermedia Technology: Implications for Second Language Learning.* Presented at the annual meeting of International Conference on Technology and Education (ICTE), London, March.

Liu, M. (1994). *A Study of the Learning Strategies by FD/FI Learning Style Groups in a Hypermedia Environment*. Presented at the 35th international conference of Association for the Development of Computer-Based Instructional Systems (ADCIS), Nashville, TN, February.

1993

Reed, W. M., Ayersman, D. J., & **Liu**, M. (1993). *The effect of hypermedia-based instruction on students' stages of concern.* Presented at the World Conference on Educational Multimedia and Hypermedia (ED-Media), Orlando, FL.

Liu, M. (1993). *Using available materials for developing multimedia training system.* Presented at the 1993 Rehabilitation Technology Association's Training Symposium, Washington, D.C.

1992

Liu, M. (1992). *An application of Hypermedia-Assisted-Instruction (HAI) in second language learning.* Presented at the Interactive Multimedia '92, Arlington, VA.

Liu, M. (1992). *The application of research-based instructional design principles in developing a Hypermedia-Assisted-Instructional courseware for second language learning.* Presented at 34th international conference of Association for the Development of Computer-Based Instructional Systems (ADCIS), Norfolk, VA.

1990

Liu, M., Reed, W. M., & Phillips, Perry D. (1990). *Teacher education students and computers: Gender, major, use, occurrence, and anxiety.* Presented at the annual conference of American Educational Research Association (AERA), Boston, MA.

Regional/State/Local Conferences

(Italic indicates co-authors are current students OR current students at the time and since graduated)

2019

Liu, M. (2019). *Supporting Teachers to Integrate Technologies in their Classrooms.* Presented at College of Education Inaugural Collaborative Research Forum, UT-Austin

2015-2016

Harron, J., **Liu**, M, *Liu*, S. and & *Myers*, R. (2016). *Alien Rescue: An Immersive 3D Game-Based Approach for Teaching Middle School Science*. Presented at annual meeting of Texas Computer Education Association (TCEA), Feb.

2012-2013

Navarrete, C.C., **Liu**, M., *Wivagg*, J. (2013). *Mobile Learning Potential: Investigating iPod Touch Use With English Language Learners***.** Presented at the annual conference of TexFLEC, February, Austin.

Park, H., *Parrish*, C., Us*Lu*, D. *Liu*, S., *Abe*, K., *Cao*, M. & **Liu**, M. (2013). *Examining Social Networking Websites from a Language Teaching Perspective*, Presented at the annual conference of TexFLEC, February, Austin.

Abe, K., *Cao*, M., D. *Liu*, *Parrish*, C., *Park*, H., Us*Lu*, S., & **Liu**, M. *Examining Four Language Learning Social Networking Websites Through A Usability Testing*. Presented at the annual conference of TexFLEC, February, Austin.

2011-2012

Liu, M. *Meadows*, C. *Park*, H. Lee, S., *Evans*, M., & *McCrory*, M. (2012). *Exploring social networking language websites: Perspectives from students, teachers, and researchers*, Presented at the annual conference of TexFLEC, February, Austin.

2009-2010

Liu, M., *Horton*, L. *Toprac*, P. & *Yuen*, T. T. (2010). *Examining the Design of Media Rich Cognitive Tools as Scaffolds in a Multimedia Problem-Based Learning Environment.* Presented at annual meeting of Eastern Educational Research Association (EERA), Savannah, GA, February.

Plass, J. L., **Liu**, M., Orey, M., & Lockee, B. (2010). Multimedia Learning–Research and Theory: A Symposium in Memory of W. Michael Reed. Eastern Educational Research Association, Savannah, GA

2006

Bogard, T., & **Liu**, M. (2006). *Advanced Learners' Use of Cognitive Tools in a Hypermedia Problem Based Learning Environment.* Presented at annual meeting of Southwestern Educational Research Association (SERA), Austin, TX, February.

2005

Cho, Y. J., *Hsieh*, P., & **Liu**, M. (2005). *The Impact of Problem-Based Learning Environment on Students' Goal Orientation, Self-Efficacy, and Achievement in Science Learning.* Presented at annual meeting of Southwestern Educational Research Association (SERA), New Orleans, LA, February.

2004

Hsieh, P. & **Liu**, M. (2004). *Examining Middle School Students' Self-Efficacy and Attitudes in a Hypermedia Problem-Based Learning Environment.* Presented at annual meeting of Southwestern Educational Research Association (SERA), Dallas, TX, February.

Pedersen, S. & **Liu**, M. (2004). *Alien Rescue: Teachers' Experiences with Problem-Based Learning Software for Middle School Science.* Presented at annual conference of Texas Computer Education Association (TCEA), Austin, February.

2003

Liu, M. & *Bera*, S. (2003). *The Role of Cognitive Support Built in a Hypermedia Enhanced Problem-Based Learning Environment for Sixth Graders: An Analysis of Tool Use Patterns.* Presented at annual meeting of Southwestern Educational Research Association (SERA), San Antonio, TX, February.

Pallais-Downing, D. M. & **Liu**, M. (2003). *Teacher's Use of Direction and Structure and the Development of Self-Directing Skills in Middle-School Students.* Presented at annual meeting of Southwestern Educational Research Association (SERA), San Antonio, TX, February.

2002

Liu, M., *Hsiao*, Y. P., Turpin, K. & Jetton, M. (2002). *Empowering Middle School Students to be Multimedia Designers Through A Project-Based Learning Approach.* Presented at annual conference of Texas Computer Education Association (TCEA), Austin, February.

1998

Liu, Min. (1998). *Examining the Effect of Hypermedia Authoring on Students' Creative Thinking Skills.* Presented at annual conference of Southwestern Educational Research Association (SERA), Houston, TX, January.

Liu, M., *Hemstreet*, S. & *Rutledge*, K. (1998). *High school and elementary school students as multimedia designers.* Presented at 18th annual conference of Texas Computer Education Association (TCEA), Austin, February.

1997

Liu, Min. (1997). *Motivating high school students with multimedia.* Presented at annual conference of Southwestern Educational Research Association (SERA), Austin, TX, January.

Liu, M., *Rutledge*, K. & Turner, M. (1997). *Empowering high school students to be multimedia designers*. Presented at 17th annual conference of Texas Computer Education Association (TCEA), Austin, February.

1996

Liu, M. (1996). Learning by doing: An experience. Presented at the 16th annual conference of Texas Computer Education Association (TCEA), Austin, February.

1995

Liu, M. (1995). *Enrich Second Language Learning through Hypermedia Technology.* Presented at the annual meeting of Southwestern Educational Research Association (SERA), Dallas, TX, January.

Liu, M. (1995). *Getting Educated in Multimedia*, an invited panel discussion at second annual South by Southwest Multimedia Conference, Austin, TX, March.

Liu, M. (1995). *Teaching Courses on Interactive Multimedia: A Challenge.* Presented at the 15th annual conference of Texas Computer Education Association (TCEA), Austin, February.

1994

Liu, M., Ayersman, D., & Reed, W. M. (1994). *Students' Perceptions of a Hypermedia Environment.* Presented at the annual meeting of Eastern Educational Research Association (EERA), Sarasota, FL, February.

Reed, W. M., Ayersman, D., & **Liu**, M. (1994).*The Effects of Three Computer-Based Courses on Students' Attitudes.* Presented as a symposium at the annual meeting of Eastern Educational Research Association (EERA), Sarasota, FL, February.

Liu, M. (1994). *Learning Styles and Hypermedia-Assisted-Instruction*. Presented at the

14th annual conference of Texas Computer Education Association (TCEA), Austin, February.

Liu, M. (1994). *Hypermedia and Teacher Education Students*. Presented at the annual Texas Center for Educational Technology (TCET) conference, April.

1993

Liu, M. (1993). *The effect of Hypermedia-assisted-instruction on second language learning through a semantic-network-based approach.* Presented at the annual conference of Eastern Educational Research Association, Clear Water, FL, February.

1992

Liu, M. (1992). *Hypermedia-assisted-instruction and second language learning: A semantic-network-based approach.* Presented at the annual conference of Eastern Educational Research Association, Hilton Head, SC.

CREATIVE PRODUCTS

Fall 2019- present: Supervising and directing the design, development, and research of a **teacher's dashboard** as an accompanying tool to **Alien Rescue,** an immersive 3D problem-based learning environment: http://alienrescue.edb.utexas.edu. The design and development of this dashboard incorporate research on learning analytics and artificial intelligence techniques.

Summer 2015- present: Supervising and directing the redesign, development, and research of **Alien Rescue Web-based (re-**designed using emerging technologies such as HTML, CSS, JavaScript, WebGL)**,** an immersive 3D problem-based learning environment: http://alienrescue.edb.utexas.edu

Fall 2010- Spring 2015: Supervised and directed the redesign, development, and research of **Alien Rescue (**created in the *Unity* game engine)**,** an immersive Web-based problem-based learning environment: http://alienrescue.edb.utexas.edu

Fall 2012, the latest version of Alien Rescue was selected as the **Winner** of the **2012 Interactive Learning Award,** sponsored by the Multimedia Production Division of *Association for Educational Communications and Technology* (*AECT*), a major national IT professional organization

Fall 2013, Alien Rescue was the recipient of **2013 Outstanding Practice Award** for its design and development model, sponsored by the Design & Development Division of *Association for Educational Communications and Technology* (*AECT*), a major international IT professional organization.

Spring 2010-2014: Supervised the creation of **Salamander Rescue**, a 3D PBL learning game.

In summer 2010, the prototype was selected as a **Finalist** of a national Learning Challenge Competition sponsored by Disney Research:

The Disney Learning Challenge is a "serious game" design competition, and, per its description, "is designed to show that sophisticated concepts can be conveyed via entertaining interactions on computers that will impart Active Knowledge of Learning Concepts. The challenge is to develop an engaging Learning Widget that will delight, inspire, and reveal key learning concepts for children ages 7-11."

This is a highly competitive contest with entries from higher education and the corporate world and has extremely high production levels.

2005 – summer 2010: Supervised and directed the redesign, development, and research of Alien Rescue 3.2 (created using the Torque Game Engine), a technology enriched PBL gaming environment.

1999-2005: Supervised the design, production, and research of the award-winning multimedia CD Alien Rescue 2.1 (created in Director and delivered on CD Rom)

Alien Rescue received the **First Prize** in the 2001 Learning Software Design Competition sponsored by the University of Minnesota. This is a national competition held annually with entries from both industry and higher educational institutions. Awarded on April 25, 2001.

Alien Rescue received an **Honorable Mention** for ingenuity in the Best Educational Application category of Macromedia eLearning Innovation Award Program. Awarded on May 16, 2001.

Directed the design and production of *College of Education Information Kiosk,* 1995-97

Multimedia at the University of Texas: Why, Who and How (received the best Web site for the open category from NSF sponsored NorthWest Center for Emerging Technologies), 1997

AWARDS AND HONORS

2025: **2025 AERA Instructional Technology SIG- Best Paper Award for** *Does Need for Cognition Determine Success in Science Problem-Based Learning: Analyzing Middle School Students' Performance* (Liu et al.)

2024-2025: Judy Spence Tate Fellow for Excellence

2024: **Nominated for the 2024 AERA SIG-IT Best Paper Award for** *Understanding Middle School Students' Self-Efficacy in a Technology-Enriched Problem-Based Learning Program: A Learning Analytics Approach* (Liu et al.)

2017-2018: Fellow, Oscar and Anne Mauzy Regents Professorship in Educational Research and Development

2016: **Best Paper Award** from Applied Research in Immersive Environments for

Learning SIG of *American Educational Research Association* (AERA) for the paper "*A Multiple-Case Study Examining Behavior Patterns By Students With Different Characteristics In a Serious Game"*

2016: **Outstanding Research Paper Award** from the *World Conference on Educational Media and Technology* for the paper "A Multimedia Enriched Problem-Based Learning Environment: Our Research and Development Experiences"

2015-17: Fellow in the H. E. Hartfelder/The Southland Corporation Regents Chair

2014-15: Fellow, Judith Spence Tate Fellowship in Excellence.

2014: **Outstanding Research Paper Award** from the *World Conference on Educational Media and Technology* (Edmedia 2014) for the paper "Using a Game-Based Approach to Design a Rich Media Learning Environment," June.

2013-14: Selected as **Professors of Excellence** at The university of Texas at Austin. [Six Professors of Excellence are selected as part of the university effort, promoting academics through Athletics. Each Professor of Excellence spotlight introduces the faculty member and explains how their work and research is impacting communities on a local, national and global scale. The spotlights run on the stadium scoreboard at one of the six longhorn home games. The professors are selected by a committee of faculty from the Faculty Council.]

2013-14: Fellow in Lawrence and Stel Marie Lowman College of Education Excellence Fund.

2013 (Oct.): Recipient of **2013 Outstanding Practice Award** for the design and development model of Alien Rescue project, sponsored by the Design & Development Division of *Association for Educational Communications and Technology* (*AECT*), a major international IT professional organization (also mentioned in Creative Products).

2013: **Outstanding Research Paper Award** from the World *Conference on Educational Media and Technology* (Edmedia 2013) for the paper "Making Learning Fun Through a Ludic Simulation," June.

2012**:** **Winner of 2012 Interactive Learning Award** for the Web-based version of Alien Rescue, sponsored by the Multimedia Production Division of *Association for Educational Communications and Technology* (*AECT*), a major international IT professional organization (also mentioned in Creative Products).

2010: **Finalist** of a national Learning Challenge Competition sponsored by Disney Research for *Salamander Rescue*, a 3D PBL learning game, 2010 (also mentioned in Creative Products).

2007: Recipient of an **Outstanding Research Paper Award** from the World Conference on Educational Multimedia and Hypermedia for the paper "*Students' Problem Solving as Mediated by Their Cognitive Tool Use: A Study of Tool Use Patterns.*"

2002-07: Recipient of Judith Spence Tate Fellowship in Excellence.

2001: **First Prize** in the 2001 Learning Software Design Competition sponsored by the University of Minnesota for *Alien Rescue*. Awarded on April 25, 2001, (also mentioned in Creative Products).

2001: **Honorable mention for ingenuity** in the Best Educational Application category of Macromedia eLearning Innovation Award Program for *Alien Rescue*. Awarded on May 16, 2001, (also mentioned in Creative Products).

1999: **Innovative Instructional Technology Honorable Mention** for developing an

interactive multimedia Web site "ThermoNet" to teach thermodynamics to undergraduate engineering students (in collaboration with faculty in department of mechanical engineering).

1998: Recipient of **Technology Integration Into Learning and Teaching Award**.
1998: Faculty fellow for the Center of Instructional Technology.
1997: Dean's Fellowship for conducting research in educational uses of interactive multimedia and hypermedia, Fall.
1997: **Innovative Instructional Technology Award** for developing an interactive multimedia approach to teaching and learning, 2nd place at the university level.
1997: Recipient of **Best Web Site Award** from NSF sponsored NorthWest Center for Emerging, Technologies for the Web site on multimedia learning, (also mentioned in Creative Products).
1993: **Research Award** from Eastern Educational Research Association for the paper entitled "*The Effect of Hypermedia Assisted Instruction on Second Language Learning Through a Semantic Network Based Approach*."
1993: **Outstanding Student Research Award** from Phi Delta Kappa, Summer.

RESEARCH FUNDING

Principal Investigator. (Sept. 1, 2022- Aug. 31, 2023). *The Examining K-12 Teachers' Motivation to Implement A Technology Enriched Problem-Based Learning Program application.* Office of the Vice President for Research Special Research Grant, $1,000.

Principal Investigator. (Sept. 1, 2021- Aug. 31, 2022). *Understanding Middle School Students' Learning of Science While Using a Digital Media Program Through Learning Analytics.* Office of the Vice President for Research Special Research Grant, $1,000.

Principal Investigator. (Jan. 1, 2018- Aug. 31, 2019). *Examining Middle School Students' Navigation Patterns in Connection to Their Learning Performances as They Use a Problem-Based Learning Game.* COE Small Research Grant, $9,462.50.

Principal Investigator. (June. 1, 2017- Aug. 31, 2018). *Alien Rescue: Support Teachers to Use Technology-Enhanced Materials.* KDK-Harman Foundation, $50,000.

Principal Investigator, (Sept. 2016- Aug. 2017). *Examining Teachers' and Students' Use of An Immersive Technological Environment Through Learning Analytics,* UT Research Institute grant, $750.

Principal Investigator. (Sept. 1, 2015- Aug. 31, 2017). *To Inspire, Engage, & Educate Today's Youth Through Technology –Enhanced Space Science Teaching Materials.* Texas Space Grant Consortium, $10,000.

Principal Investigator, (Sept. 2015- Aug., 2016). *Examining Behavior Patterns By Students With Different Learning Characteristics In Using a Serious Game Through Visualization,* University Research Institute grant for the project, $750.

Principal Investigator, (Sept. 2014- Aug., 2015). *Examining the Effects of a 3D Immersive Digital Game Environment on Middle School Students' Learning of Science and Motivation,* University Research Institute grant for the project*,* $750.

Faculty Mentor, (2014-2015) Diversity Mentoring Fellowship to help bring outstanding new graduate students to campus, $36,000.

Principal Investigator. (Spring 2014). *Examining the Impact of Using Emerging Technologies in Teaching and Learning.* UT Faculty Research Assignment, one semester teaching duty release (equivalent as sabbatical for UT).

Principal Investigator. (2013-2014). *Salamander Rescue: A learning game*. Ludus Project, $11,000.

Co-Principal Investigator (2013-2014). *Curriculum Innovation in Pharmacy: Exploration of Best Practices to Support Active Learning in a Synchronous Multi-Site Learning Environment***,** UT Austin**,** $38,975.

Principal Investigator. (May 1, 2012- Aug. 31, 2014). *Preparing Teachers and Students for the 21st Century Through Emerging Technology –Based Professional Development.* Texas Space Grant Consortium, $15,000.

Principal Investigator. (2013). *Alien Rescue: Using a Gaming Approach to Engage Today's Youth in Learning Science*. ESA Foundation, $50,000.

Principal Investigator. (Sept., 2010- Aug. 31, 2012). *Supporting Teachers to Integrate Multimedia Technology in Teaching Space Science*. Texas Space Grant Consortium, $15,000.

Principal Investigator, (2011-2012). *Alien Rescue: Preparing Youth for the 21st Century*, Dell Foundation, $10,000.

Principal Investigator, (2011-2012). Diversity Mentoring Fellowship to help bring outstanding new graduate students to campus, $24,668.

Principal Investigator, (Sept. 2011- Aug., 2012). *Exploring Using Games to Teach Science for Middle School Students,* University Research Institute grant for the project*,* $750.

Principal Investigator, (2010-2011). *Promote Problem-Solving Skills with New Media*, Dell Foundation, $5,000.

Principal Investigator, (Sept. 2010- Aug., 2011). *Studying Students' Motivation in New Media Environment,* University Research Institute grant for the project*,* $749.

Principal Investigator, (Sept. 2008- Feb., 2010). *Making An Engaging New Media Enriched Space Program Accessible to All Middle School Students*. Texas Space Grant Consortium, $14,571.

Principal Investigator, (Sept. 2009- Aug., 2010). *Understanding How Middle School*

Teachers Implement A Multimedia Enriched Problem-Based Learning Environment in Science, University Research Institute grant for the project*,* $750.

Principal Investigator, (2010). *Exploring the potential to deliver instruction via mobile devices,* COE Vision Award program.

Project Director, (2009-2010). *Emergent Technologies for Curriculum Enhancement*, UT Faculty and Student Teams for Technology (FAST-Tex) program, student support in the amount of $3000.

Principal Investigator, *Training Teachers to Use An Inquiry-Based Innovative Educational Program, Alien Rescue*. ($3,000). Dell Foundation, 2009.

Principal Investigator, *Making Technology Innovations Accessible to All Students* ($3,000). Dell Foundation, 2008.

Principal Investigator for *Motivating Middle School Students to Learn Science and Assist them in Developing Problem-Solving Skills Through An Engaging New Media Enriched Space Program* ($14,725). Texas Space Grant Consortium, Sept. 2006- Dec. 2008.

Project Director of 2008 COE Vision Award program for the project *Using New Media to Make Technology Innovations Accessible to All Students*.

Principal Investigator of University Research Institute grant for the project *Examining how middle school science teachers implement a technology enhanced problem-based learning environment in their classrooms* ($750). Sept. 2006 - Aug. 2007.

Project Director of UT Faculty and Student Teams for Technology (FAST-Tex) program for the project *Creating Multimedia Games: A First Step* (student support in the amount of $2000). The University of Texas at Austin, 2006.

Project Director of 2006 COE Vision Award program for the project *Creating Engaging Educational Games to Motivate Middle School Students to Learn Science* (student and software support in the amount of $3800), 2006.

Principal Investigator of University Research Institute grant for the project *Using Digital Games to Motivate Middle School Students* ($750). Sept. 2005 - Aug. 2006.

Project Director of UT Faculty and Student Teams for Technology (FAST Tex) program for the project *Developing Design Learning Activities* (student support in the amount of $2000), 2005.

Principal Investigator of University Research Institute grant for the project *Examining the use of cognitive tools by experienced learners in a technology enhanced problem-based learning environment* ($750), Sept. 2004 - Aug. 2005.

Principal Investigator for *Implementing and Disseminating an Innovative Hypermedia Problem-Based Learning Environment for Middle School Science: Alien Rescue* ($43,000). American Honda Foundation, Aug. 2001- Aug. 2004.

Project Director of UT Faculty and Student Teams for Technology (FAST Tex) program for the project *Creating Web Based Database Applications to Support Teaching* (student support in the amount of $1000), 2003.

Principal Investigator for *Promoting Middle School Students' Problem-Solving Skills Through An Innovative Multimedia Astronomy Program: Alien Rescue* ($5000). Tyco Electronics Foundation, 2002.

Project Director of UT Faculty and Student Teams for Technology (FAST Tex) program for the project *Creating A Web Based Database Tutorial to Support Teaching* (student support in the amount of $1300), 2002.

Principal Investigator for *Developing an Innovative Hypermedia Problem-Based Learning Environment for 6th Graders in Space Science* ($2500). Verizon Foundation, 2000.

Principal Investigator of University Research Institute grant for the project *The Use of Cognitive tools to Support Learning in an Interactive Multimedia Environment* ($750), Sept. 2000 - Aug. 2001.

Co-Principal Investigator (with Drs. Mary Kay Hemenway at the McDonald Observatory and Susan Pedersen at the Texas A&M University) for *Developing Astronomy Support for the Hypermedia Based Product Alien Rescue and Providing Teacher Training* ($26,203). NASA Space Telescope Science Institute, 1999-2001.

Principal Investigator of a strategic partnership grant between Dell Computer Cooperation and the University of Texas at Austin for the project *A Collaborative Effort by UT and Dell to Design and Produce Multimedia Training Materials for Use at Dell* ($33,160). Dell Computer Cooperation, June 1999 - August 2000.

Principal Investigator for *Developing an Innovative Hypermedia Problem-Based Learning Environment for 6th Graders in Space Science* ($2500). Dell Foundation, 2000.

Principal Investigator for *Developing an Innovative Hypermedia Problem-Based Learning Environment for 6th Graders in Space Science* ($2500). GTE Foundation, 2000.

Principal Investigator, *Alien Rescue: A Multimedia Supported Problem-Based Learning Environment for 6th Graders* ($15,000). Charles Dana Center at UT-Austin, Sept. 99- May 2000.

Project Director of UT Faculty and Student Teams for Technology (FAST Tex) program for the *project Theoretical, Practical and Technical Perspectives of Interactive Multimedia Technology: A Web Site Development* (student support in the amount of $2500). The University of Texas at Austin, 2000.

Project Director of UT Faculty and Student Teams for Technology (FAST Tex) program for the project *Developing Hypermedia based Interactive Program in Space Education: Alien Rescue* (student support for $2500), Spring, 1999.

Principal Investigator (with Ms. Sandi Preston, Director of Public Information at McDonald Observatory, and Dr. John Slatin, Director for Institute for Technology and Learning as co-PIs) of the Motorola Grant for the project *Enhancing Middle School Students' Higher Order Thinking Skills Through Problem-Based Learning* ($3000). Motorola Cooperation, Jan. 98 - Dec. 98.

Co-Principal Investigator (with Drs. Philip Schmidt and Ofodike Ezekoye, Department of Mechanical Engineering) of the grant *ThermoNet: Internet and Interactive Multimedia Resources for Introductory Thermodynamics* ($102,000), National Science Foundation, Jan. 1997 - Dec. 1999.

Principal Investigator of University Research Institute grant for the project *The use of Multimedia exams both as an assessment tool and as a learning tool* ($500). The University of Texas at Austin, Sept. 1998 - Aug. 1999.

Co-Principal Investigator (with Dr. Marilla Svinicki, Center for Teaching Effectiveness, and Dr. George Culp, Center for Instructional Technology) of the grant *Identifying Best Practices for Using Multimedia at the University of Texas System* ($15,000), The University of Texas System, Sept. 97- Aug. 1998.

Principal Investigator of Project Quest Award for conducting the project *Use Interactive Multimedia to Enhance Students' Higher Order Thinking Skills* ($2000), 1998.

Principal Investigator of University Research Institute grant for the project of *Examining the Effect of Engaging Elementary Students in Hypermedia Authoring on Their Creative Thinking* ($500), Dec. 1997 - Aug. 1998.

Principal Investigator of the Motorola Grant for the project *Motivation, Creativity, and Interactive Multimedia Technology* ($1900). Motorola Cooperation, Jan. 97 - Dec. 97.

Principal Investigator of University Research Institute grant for the project of *Engaging Elementary School Students as Knowledge Designers* ($750), Nov. 1996 - Aug. 1997.

Principal Investigator, Summer Research Award for the project *Designing Effective Multimedia Instruction: Study of Information Accessing Strategies Using Multimedia Kiosks*, (two months' salary), 1996.

NATO Award ($1200) and National Science Foundation Award ($1000) to attend the NATO Advanced Studies Institute on *Supporting Computer Environment* at Heriot-Watt University, Edinburgh Scotland. Sixty people around the world have been selected, August 14 - August 24, 1994.

Principal Investigator of Faculty Research grant from the Center for Applied Research and Development in Education at University of Texas to conduct research on designing effective multimedia based kiosks ($750), Nov. 1994.

Principal Investigator of University Research Institute grant for the project of *Exploring the Cognitive Factors of the Hypermedia Technology*, ($500), Jan. 1994 - July 1994.

PROFESSINAL SERVICE

International & National

External P&T Reviewer for the Following Universities

- Arizona State University (from assoc to full), 2021
- The Chinese University of Hong Kong (from assoc to full), 2021
- Indiana University (from assoc to full), 2019
- Syracuse University (from assoc to full), 2017
- University of North Carolina (from assoc to full), 2017
- George State University (from associate to full), 2016
- Hunter College, NYC (assistant to associate), 2016
- University of Tennessee (from associate to full), 2014
- University of Minnesota-Twin Cities (assistant to associate), 2014
- University of St. Thomas (from assoc to full), 2014
- The Chinese University of Hong Kong (from assoc to full), 2013
- The Chinese University of Hong Kong (from assistant to associate), 2011
- NC State University (from assistant to associate), 2010
- Virginia Tech (from assistant to associate), 2010
- University at Albany, State University of New York, 2009
- Syracuse University (from assistant to associate), 2009
- University of New Mexico (from assoc to full), 2008
- Old Dominion University (from assoc to full), 2008
- Virginia Tech (from associate to full), 2007
- The University of Texas at San Antonio (from assistant to associate), 2005
- University of Louisiana at Lafayette (from assistant to associate), 2004
- University of Missouri-Columbia (from assistant to associate), 2003
- New York University (from assistant to associate), 2002

Invited External Reviewer Internationally

External Ph.D. Dissertation Reviewer

Invited by the University of Notre Dame **Australia** to serve as an external reviewer for the dissertation, **"**The Design and Development of E-textbooks to Support Problem Based Learning in Secondary School Science Classrooms" by Nigel Stewart and prepared a written report, June 2018

External MA Thesis Reviewer

Invited to review a master thesis "A study on the instructional relationships in a multimedia mediated learning environment" from Institute for Postgraduate Studies, Multimedia University, Malaysia, summer 2013

Invited External Reviewer for International Grant Proposals

- Invited to review by the Education University of Hong Kong for its 2020/2021 *Knowledge Transfer (KT) for and impact on the wider community, beyond academia grants*, Spring 2021
- Invited to review for the Czech Science Foundation (its equivalent of NSF) for grant proposal, *19-02532S EduGames4K: Designing educational games for kids*, Sept. 2018

Editorial

- Associate Editor, *Computers in Human Behavior,* January 1, 2016 - 2019.
- Consulting editor for *the Interdisciplinary Journal of Problem-based Learning* (iJPBL), 2012 – present.
- Consulting editors for research section for *Educational Technology Research and Development* (ETR&D), 2008 – present.
- Member of scientific board, *Computers in Human Behavior (CHB),* 2013 - present.
- Editorial Board member, *Journal of Research on Technology in Education (JRTE),* 2004 - present.
- Manuscript Review Board member, *Journal of Educational Computing Research (JECR),* Fall 2000 - present.
- Editorial Board member, *Computers in Human Behavior,* 1998 – 2013
- Elected Research Board Member for *Educational Technology Research and Development* (ETR&D), 2008 – 2011 (3 –year term).
- Editorial Board member, *Journal of Research on Computing in Education,* 1995 – 2001 (completed two terms of service).
- Editorial Review Board member, *Journal of Computing in Childhood Education*, 95 - 98.
- Ad hoc reviewer, *Computers & Education*, 2010-2011, 2016, 2017, 2018, 2024
- Ad hoc reviewer, *Int Journal of Human-Computer Studies*, Spring 2024,
- Ad hoc reviewer, *American Journal of Distance Education* (AJDE), Spring 2015, Spring 2016, Fall 2016. 2017, 2018
- Ad hoc reviewer, *Learning and Individual Differences* journal, Fall 2016
- Ad hoc reviewer, *Instructional Science*, 2010-2011, Spring 2016, Fall 2016-2019
- Ad hoc reviewer, *Journal of Computer Assisted Learning*, 2017
- Ad hoc reviewer, *Australasian Journal of Educational Technology,* 2018
- Ad hoc reviewer, *British Journal of Educational Technology*, 2017, 2019
- Ad hoc reviewer, *International Journal of Human-Computer Interaction*, Fall 2015
- Ad hoc reviewer, *Interactive Learning Environments*, Spring 2016
- Ad hoc reviewer, *Language Learning & Technology*, 2012-2013
- Ad hoc reviewer, *International Journal of Interactive Learning Environments*, 2010-2011
- Ad hoc reviewer, *Learning, Media and Technology*, 2010-2011

- Ad hoc reviewer, *International Journal of Qualitative Studies in Education*, 2006 - 2007.
- Ad hoc reviewer, *Language Learning & Technology*, 2004 - 2005.
- Ad hoc reviewer, *Electronic Commerce Research Journal*, 2003.
- Ad hoc reviewer, *Journal of Educational Computing Research,* 1996 - 1997.

International Professional Organization Committee

- Invited to serve on The Thirteenth International Conference on Mobile, Hybrid, and On-line Learning (eLmL) 2021, Nice, France, July 2021
- Invited to serve on international advisory committee for the 4th International Conference on Distance Education and Learning (ICDEL 2019). Shanghai, China, 2019.
- Elected treasurer for AERA SIG Online Teaching ad Learning (OTL), April 2016- April 2019, 3-year term.
- Invited member of the program committee of Technology Enhanced Language Learning of the Global Chinese Conference on Computers in Education (GCCCE 2019), 2019.
- Invited member of the program committee of Technology Enhanced Language Learning the Global Chinese Conference on Computers in Education (GCCCE 2017), 2017.
- Invited to be Program Committee for 2017 International Conference on Computer Science and Information Communication CSICT2017.
- Invited PC member to International Conference on Internet of Things and Machine Learning (IML 2017) conference/ Venue: Liverpool John Moores University, United Kingdom.
- Invited Program Committee member for Second International Conference on Advanced Wireless Information and Communication Technologies (AWICT 2017) held at Université de Paris-Saclay, Paris, France.
  Member of the program committee (Track 18) of the 16th IEEE International Conference on Advanced Learning Technologies (ICALT2016)**,** 2016**.**
- Member of the program committee of the 20th Global Chinese Conference on Computers in Education (GCCCE 2016), 2016.
- Member of the program committee of the 19th Global Chinese Conference on Computers in Education (GCCCE 2015), 2015.
- Executive Committee member for the *World Conference on Educational Multimedia and Hypermedia* (EdMedia), 2010 - 2013.
- Member of the Program Committee for the *World Conference on Educational Multimedia and Hypermedia* (Ed Media), 1999 - 2015.
- Member of the International Program Committee (IPC) for the IASTED *International Conference on Internet and Multimedia Systems and Applications* (EuroIMSA), 2005, 2006 & 2007.
- Member of the Program Committee for *the Sixth International Conference on Computers in Education*, 1998.

Grant/Conference/Book Reviewer (Selected)

- Proposal reviewer, *American Educational Research Association* (AERA), Online Teaching and Learning SIG, Instructional Technology SIG, Aug. 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024

- Proposal reviewer, Global Chinese Conference on Computers in Education (GCCCE 2019), 2019.
- Proposal reviewer, Global Chinese Conference on Computers in Education (GCCCE 2018), 2018.
- Proposal reviewer, Global Chinese Conference on Computers in Education (GCCCE 2017), 2017.
- Proposal reviewer, *World Conference on Educational Multimedia and Hypermedia* (Ed Media), Spring 2017.
- Proposal reviewer, 20th Global Chinese Conference on Computers in Education (GCCCE 2016), Feb. 2016.
- Proposal reviewer, *American Educational Research Association* (AERA), Computer and Internet Applications SIG 2014, 2015.
- Proposal reviewer, *American Educational Research Association* (AERA), Division C, Section 3b (Technology-Based Learning Environments, 2013.
- Proposal reviewer, *World Conference on Educational Multimedia and Hypermedia* (Ed Media), 1999 - present.
- Proposal reviewer, *American Educational Research Association* (AERA), Division C, Learning Environments, 2011.
- Reviewer, annual Young Scholar Competition sponsored by *Association for Educational Communications and Technology* (AECT), 2008- 2011.
- Proposal reviewer*, American Educational Research Association* (AERA), Technology, Instruction, Cognition and Learning SIG, 2008-2010.
- Proposal reviewer, *American Educational Research Association* (AERA), Division C section 7 (technology research), 1997, 2000 - 2009.
- Proposal reviewer, *American Educational Research Association* (AERA), Division C section 5 (Learning Environments), 2007-2009.
- Proposal reviewer*, American Educational Research Association* (AERA), Technology, Instruction, Cognition & Learning SIG, 2007-2009.
- Reviewer, Handbook of Research for Educational Communications and Technology, 3rd ed., sponsored by *Association for Educational Communications and Technology* (AECT), Spring, 2009.
- Proposal reviewer, Conference on *Internet and Multimedia Systems and Applications* (EuroIMSA), 2008.
- Proposal reviewer, *American Educational Research Association* (AERA), Division C section 6 (Cognitive, Social, and Motivational Processes), 2007.
- Proposal reviewer*, American Educational Research Association* (AERA), Motivation in Education SIG, 2004.
- Proposal reviewer, *American Educational Research Association* (AERA), Instructional Technology SIG, 2001, 2004, 2005.
- Proposal reviewer, *American Educational Research Association* (AERA), Design and Technology SIG, 2003.
- Reviewer, Cooperative Grants Program from *U.S. Civilian Research & Development Foundation,* 2003-2004.
- Proposal reviewer, Conference on *Internet and Multimedia Systems and Applications* (EuroIMSA), 2004-2005.

- Proposal reviewer, *American Educational Research Association* (AERA), Division C section 4a (school based learning environments), 2000-2001.
- Proposal reviewer, *American Educational Research Association* (AERA), Computer Applications in Education SIG, 1994-95, 2000-01.
- Proposal reviewer, National Science Foundation, Undergraduate Division, 1998.
- Proposal reviewer, *Sixth International Conference on Telecommunications and Multimedia in Education*, 1997.
- Book proposal reviewer, New Media for Integrated Media Group, Wadsworth Publishing Company, 1996.

Invited Presentations (Selected)

- Keynote speaker for the *4th International Conference on Distance Education and Learning (ICDEL 2019)* sponsored by Asia Society of Research (ASR). Shanghai, China, May 2019.
- Invite panel speaker for "*Shaken, Not Stirred: Recipes for Supporting Blended Learning*" at the 2015 annual meeting of the Educational Media & Technologies Section of the Medical Library Association, May 2015.
- Invited to present on "*Adventures in Alien Rescue*" at the College of Education Advisory Council Teaching Showcase, Oct., 2014
- Invited presentation, *Using Technology to Support Space Education*, for Texas Space Grant Consortium annual board meeting, April, 2011.
- Keynote, *Designing An Interactive New Media Enriched Learning Environment for Middle School Science: A Design-Based Research Approach*, 3rd annual Technology & Learning Symposium, New York University, 2007.
- Invited speaker*, Designing Interactive Multimedia Learning Environments to Support Cognitive Skills Development,* World Conference on Educational Multimedia & Hypermedia (Ed Media 02), Denver, CO. 2002.
- Invited speaker, *Enhancing Students' Problem-solving Skills Through A hypermedia-Supported Problem-Based Learning Approach*, New York University, 2000.
- Invited speaker*, Issues and Challenges in Designing Interactive Multimedia Learning Environments.* Invited presentation at New York University, 2000.
- Invited speaker*, Issues to Consider When Designing Web Based Instruction,* 7th National Teaching Academy for Pharmacy, University of Texas, 2000.
- Invited speaker*, Design Consideration for Web Based Instruction,* 6th National Teaching Academy for Pharmacy, University of Texas, 1999.
- Invited speaker*, Teaching and Researching with Technology,* National Undergraduate Research Conference, University of Texas, 1997.
- Invited presentation, *Multimedia and Instructional Design,* Faculty Technology seminar, University of Texas-Austin, 1997.
- Invited speaker*, Multimedia and Instructional Technology Program*, International Interactive Communications Society Austin chapter, 1996.
- Invited speaker*, Multimedia and Instruction,* College of Natural Sciences, 1994.
- Invited presentations at University of Jyväskylä in Finland and University of Gothenburg in Sweden on the *application of Hypermedia technology in education: its theoretical assumptions and practical applications*, Oct. 3 - Oct. 20, 1992.

Other Service (Selected)

- As an executive committee member, I offered a session on "Quantitative research, qualitative research, and mixed methods: Which one to use?" as part of the Graduate students Stream at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications,* Victoria, BC, Canada, June, 2013
- As an executive committee member, I offered a session on "Avoid possible pitfalls and be successful in your dissertation journey" as part of the Graduate students Stream at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications,* Victoria, BC, Canada, June, 2013
- As an executive committee member, I offered a session on "Quantitative research, qualitative research, and mixed methods: Which one to use?" as part of the Graduate students Stream at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications,* Denver, June, 2012
- As an executive committee member, I offered a session on "Avoid possible pitfalls and be successful in your dissertation journey" as part of the Graduate students Stream at *the World Conference on Educational Multimedia, Hypermedia and Telecommunications,* Denver, June, 2012
- Consulted on *Criteria on Ranking Journal Publications* by The Hong Kong Institute of Education (HKIEd), Feb. 2011
- Member of National Advisory Board for Restructuring Instruction in Special Ed. (RISE) Project, funded by Office of Special Programs, 2008-2009.
- Consulted with KDH Research & Communication (KDHRC), an institution that constructs and evaluates public programs to improve the health and well-being of the nation's youth, families, and communities, 2009.

Workshops for K-12 Teachers

- *Technology, Pedagogy, and Problem-based learning: classroom Implementation Issues.* Workshop offered to middle school teachers in the Texas area, Spring 2012.
- *Supporting teachers to use a problem-based learning environment: Establishing a community of learners,* Workshop offered to middle school teachers in the Texas area, Spring 2009.
- *Using a technology-enhanced problem-based learning environment, Alien Rescue,* Workshop offered to middle school teachers in the Texas area, Fall 2002; Fall 2003.
- *Supporting the development of problem-solving skills through a technology enhanced approach,* Workshop offered to middle school teachers in the Texas area, Fall 2001; Spring 2002.
- *Using Problem-Based Learning in the Classrooms,* Workshop offered to middle school teachers in the Texas area, Fall 2000; Spring 2001.
- *Students as Multimedia Designers: What and How,* Workshop offered to teachers participating For Apple Summer Institute, July 2001.
- *Alien Rescue: An Interactive Problem-Based Learning Environment for Middle School Students,* Workshop offered to middle school teachers in the Texas area, Fall 2000; Spring 2001.

- *Educational Uses of Multimedia: An Example,* Presented to teachers attending the first UT Interactive, March 1999.
- *Creating Multimedia Presentations using PowerPoint,* Presented to teachers attending Texas State Technology conference (TCEA 98), Feb. 1998
- *Creating Course Materials for the World Wide Web,* Presented to teachers attending the Sixth International Conference on Telecommunications and Multimedia in Education (Tel Ed 97), Nov. 1997.
- *Creating Multimedia Presentations using Persuasion,* Presented to teachers attending Texas State Technology conference (TCEA 97), Feb. 1997.
- *Technology for Classroom of the Future,* Presented to the KLRU National Teacher Training Institute for Math, Science and Technology, Austin, TX, Feb., 1996
- *Creating Multimedia Presentation using Aldus Persuasion,* Presented to teachers attending Texas State Technology conference (TCEA 96), Feb. 1996.
- *Creating Dynamic Presentations Through Multimedia Technology: A Hands-on Experience,* Presented at the 6th annual national conference of Society of Information Technology & Teacher Education (SITE). San Antonio, TX. March 1995.
- *Integrating Interactive Multimedia into Curriculum,* Presented to teachers at Centers for Professional Development & Technology Language Minorities Institute sponsored by Texas Education Agency, Houston, TX, Feb. 1995.
- *Use of Multimedia in Education,* Presented to the KLRU National Teacher Training Institute for Math, Science and Technology, Austin, TX, Feb., 1995.
- *Evaluating Educational Software,* Presented to inservice teachers participating in the Texas Immersion Project, University of Texas at Austin, July, 1995.
- *Instructional Design Process for Teachers,* Presented to inservice teachers participating in the Texas Immersion Project, University of Texas at Austin, July, 1995
- *Multimedia through Macromedia Director,* Presented to faculty in the Science Academy of Austin, University of Texas at Austin, June, 1994.

Workshops For College Faculty

- *Creating Course Materials for the World Wide Web: Authoring and Designing,* NSF sponsored Chautauqua short courses for college teachers, May 2002.
- *Creating Course Materials for the World Wide Web: Tools and Technique,* NSF sponsored Chautauqua short courses for college teachers, May 2001.
- *Creating Course Materials for the World Wide Web: Authoring and Designing,* NSF sponsored Chautauqua short courses for college teachers, May 2001.
- *Creating Course Materials for the World Wide Web-Level I,* NSF sponsored Chautauqua short courses for college teachers, May 2000.
- *Creating Course Materials for the World Wide Web-Level II,* NSF sponsored Chautauqua short courses for college teachers, May 2000.
- *Creating Course Materials for the World Wide Web,* sponsored Chautauqua short courses for college teachers, May 1999.
- *Creating Course Materials for the World Wide Web,* NSF sponsored Chautauqua short courses for college teachers, May 1998.
- *Using PowerPoint for Creating Multimedia Materials (Intro level),* presented to the faculty during the College technology fair, Dec. 1997.

- *Using PowerPoint for Creating Multimedia Materials (Advance level)***,** presented to the faculty during the College technology fair, Dec. 1997.
- *Developing Courses for the World Wide Web,* workshop offered at the Syllabus National Workshops & Seminars 97, Dallas TX, April, 1997
- *Presentations and Multimedia in the Classroom,* workshop offered at the Syllabus National Workshops & Seminars 97, Dallas TX, April, 1997

Working with Schools

From 2020 - to present, I have been working with middle schools in two school districts (Leander ISD and Round Rock ISD) as well as schools in states of FL, IN, NJ, UT, and other parts of TX to implement a newly designed problem-based learning environment, *Alien Rescue,* in the 6th grade classrooms and provide relevant professional training.

From 2010 - to 2020, I have been worked with **16** middle schools in Central Texas and schools in at least **30 states** (AZ, CA, CO, CT, FL, GA, HI, IA, IL, IN, KS, MA, MD, MI, MN, MO, MS, NC, NM, NJ, NY, OH, OR, PA, SC, TN, UT, VA, WA, WI) and **four countries** (Australia, Canada, China, S. Korea) to implement a problem-based learning environment, *Alien Rescue,* in the 5th- 9th grade classrooms.

Worked with two middle schools in Central TX to pilot an inquiry-based Web unit to enhance cultural awareness through Japanese food, in collaboration with UT Center for East Asian Studies.

Worked with one middle school in Central TX on engaging students as multimedia designers using a project-based learning approach.

Worked with two high schools, one middle school, and two elementary schools in Central Texas on designing and producing multimedia projects using a cognitive apprenticeship model.

State & Local (Selected)

- Worked with Texas Space Grant Consortium in developing instructional materials using technology to support Space science curriculum, 2015-2017
- Consulted with visiting Portuguese researchers for the UT/Portugal International Collaboratory for Emerging Technologies CoLab to discuss their efforts on certification in game-based learning, Aug. 2015
- Consulted on evaluating technology tools for classroom use with Director of Educational Technology, Teacher Preparation, Support and Development, *Teach For America*, Nov. 2014
- Consulted with graduates from McCombs MBA, MSTC Class of 2013 on their concept of developing a technology product for education, June *2013*
- Community Advisory Board for KLRU, *1997 - 1998*
- Committee for Software Preview Center Collaborative among Austin Independent School District and Regional Educational Center & UT, *1994-1995*

- Committee for Alternative Delivery Methods, Texas Real Estate Commission Education Department, *1994-1995*
- Evaluator of the project "Professional Development School Distance Education Initiative" by University of Louisiana at Lafayette, 2002.
- Advisor, Teleconference on "Improving multimedia and online courses with instructional design" by Dallas TeleLearning in conjunction with PBS, 2002.
- Invited participant for discussion of the multimedia design process at an Austin multimedia company, Human Code, 2000
- Invited discussant on technology use in education for K-12 students by Holt, Reinhart & Winston company, 2000.

University & College

Serving on College/University/Interdepartmental Committees (Selected)

- Member, University Disabled Faculty Equity Council, Spring 2022 –December 2023
- Member, COE Teacher Education Committee, 2022 – 2024
- Member, Dean's Promising Scholars Committee, 2022 –2023
- Member, University Outstanding Dissertation Committee: Reviewed nominated dissertations for recommending outstanding University dissertation awards, Spring 2017; Spring 2018, Spring 2021, Spring 2022
- COE *campus visit*, representing the Program Area, meeting with newly admitted students and addressing their questions, 2/26/2018, 2/25/2019, 3/22/2021, 3/4/2022, 3/6/2023, 3/4/2024, 2/24/2025, 2/23/2026
- Met with a delegation from *National Taipei University of Education* (its president, deans, directors, managers, and faculty) to discuss the technology use in education - Students centered learning, 10/9/2017
- COE Office of Instructional Innovation Advisory Committee, 2016-2018
- COE campus visit, representing the department, meeting with newly admitted students and addressing their questions, 3/6/2017
- Member of a Working Group consisting of staff in Center for Teaching & Learning and faculty from differently colleges to look at using learning analytics in Canvas on campus, Summer 15– Spring 2016
- Member of Working Group with staff in Center for Teaching & Learning and faculty in the College of Pharmacy on their adaptive technology project for Pharm D curriculum and evaluated LeaP system, Fall 2015 - Spring 2016
- Member of Working Group with staff in Center for Teaching & Learning and faculty in the College of Pharmacy on their multi-site distance learning project for Pharm D curriculum, Fall 2014 - Summer 2015
- COE campus visit, representing the department, meeting with newly admitted students and addressing their questions, 3/7/2016
- COE campus visit, representing the department, meeting with newly admitted students and addressing their questions, 3/5/2015
- Invited to present on "*Adventures in Alien Rescue*" at the College of Education Advisory Council Teaching Showcase, Oct., 2014
- Member of College Faculty Research Assignment (FRA) and Summer Research Assignment (SRA) review committee, *Fall 2013*

- College of Education Gender Equity council, *2010 - 2013*
- Provost's University Technology Enhanced Learning committee, *2003-2004*
- College Teacher Education Committee, *2002-2003*
- Provost's University Multimedia Instruction Committee, *1994-1997*
- Provost's ad-hoc committee on Using Technology, *1995-1996*
- University Rethinking Dissertation Format Committee, *1995-1996*
- Faculty advisory committee for University of Texas Kiosk, *1994-1996*
- Planning committee for annual National Teaching Academy on Computer-Based Teaching Technology for the College of Pharmacy, *1993-1996*
- University Multimedia Classroom Planning Committee, *1994-1995*

Other Service

- Instructional Technologist for "MainStep" project, funded by US Department of Education to Department of Special Education, to create video-based anchored instruction for training teachers to help students with learning difficulties, 2003-2005.
- One of the 7 Judges for the Innovative Instructional Technology Awards Program (IITAP), sponsored by Center of Instructional Technology and Provost Office, UT-Austin, 2004.
- Member of a University Utopia project of "Talking over Books" (with N. Roser), 2004.
- Presentation on "Enhancing Learning with New Media Technology" to parents of freshmen, during College's Parents Week, Oct. 2004.
- Shared research with undergraduates in "Emerging Scholars Program," UT-Austin, 2004.
- Consultant, Seakeeping Cognitive Readiness and Decision-Making Skills using problem-based learning, Summer 2003-Dec. 2003.

Department

Serving on Departmental Committees (Selected)

- Member, Departmental Executive Committee (EC), *2006 – Present*
- Chair, Departmental Executive Committee, Merit Review Teaching subcommittee, *2017 - 2019*
- Member, EC sub-committee on Merit Review Criteria, Fall 2018
- Chair, Fellowships & Other Awards Committee. Fall 2022- Spring 2025
- Member, Fellowships & Other Awards Committee. Fall 2020- Spring 2022
- Member, Travel Awards Committee, Fall 2017 – Spring 2019
- Program Graduate Advisor, Learning Technologies, 2002 – present (except 2019-20)
- Program Coordinator for Learning Technologies, 2002 – Sept. 2025 (except 2019-20)
- Coordinating teaching of Departmental Masters Level Research Course, *2020 –Aug. 2025*
- Member, Departmental standing committee on admission, *2020 – present*
- Member, Departmental standing committee on admission, *2002 – 2019*
- Member, Departmental GPAC Committee, *2020 – present*
- Member, Departmental GPAC Committee, *2002 – 2019*
- Member, Graduate Studies Committee, *1993 - Present*
- Member, Departmental Executive sub-committee to perform 6-yr post-tenure review of a colleague, *Spring 2013, Fall 2013, Spring 2015, Spring 2016, Spring 2017, Spring 2019*

- Member, Departmental committee to perform 1-yr tenure-track review of two colleagues, *Spring 2016, 2017*
- Member, Departmental Executive Committee, Merit Review Scholarship subcommittee, 2009 – 2012; *2015 - 2017*
- Member, Departmental Executive Committee, Merit Review Service subcommittee, 2012 - *2015*
- Member, Departmental Executive Committee, Merit Review Teaching subcommittee, *2008 -2009*
- Chair, Departmental Programs and Courses Committee, *2016 - 2017*
- Co-Chair, Departmental Programs and Courses Committee, *2015 - 2016*
- Chair, Departmental Programs and Courses Committee, *2014 - 2015*
- Member, Departmental EC Structure Ballot Committee, *Spring 2015*
- Member, Departmental Masters Level Research Course Committee, *2013 - 2017*
- Member, Departmental Website Redesign and Usability Ad hoc Committee, Fall 2012
- Member, Departmental Executive Committee, Scholarship subcommittee, *2009 - 2012*
- Member, Departmental Executive Committee, Teaching subcommittee, *2008 - 2009*
- Member, Departmental Foundations, Research, and Common Course Committee (masters level research course), 2012 - 2013
- Member, Foreign Language Education Graduate Studies Committee, *1993 – 2015*
- Member, Departmental Human Subjects Review Committee, *1998 - 2009*
- Chair, Departmental standing committee on admission, *2005 - 2006*
- Member, Ad Hoc Committee on Core Foundations: Teaching/Instruction, *2008-2009*
- Member, Departmental Standing committee on awards & fellowships, *2001-2003*
- Chair, IT new faculty search committee, *2002-2003*
- Participated in the departmental Diversity Dialogue and (now) Social Justice Praxis

PROFESSIONAL MEMBERSHIPS

Regional Level

Southwestern Educational Research Association (SERA, 1993 - 2008)
Eastern Educational Research Association (EERA, 2010 - 2011)

National Level (current member)

American Educational Research Association (AERA)
Association for the Advancement of Computing in Education (AACE)
Association for Educational Communications and Technology (AECT)
International Society for Technology in Education (ISTE)