

Amy L. Baylor, Ph. D.

CURRICULUM VITAE, *Updated 1/7/2008*



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EDUCATION

- Stanford University, B.A. Philosophy (minor Artificial Intelligence). 1990.
- University of South Carolina, Ph.D. Educational Psychology (minor Educational Technology). Dissertation: "The effects of designing instruction for text on learning." 1997.

PROFESSIONAL EMPLOYMENT

- Program Director (2006-present). Division of Information and Intelligent Systems (IIS); Directorate of Computer & Information Science & Engineering (CISE). National Science Foundation, Arlington, VA.
 - Program Director for Human-Centered Computing : manage over 100 proposals submitted to the Division of Intelligent Systems
 - Program Director for Advanced Learning Technologies (ALT) : manage over 100 proposals with inter-directorate team from CISE and Education/Human Resources (EHR)
 - Program Director for Cyberinfrastructure TEAM (CI-TEAM): represent CISE directorate for this multi-directorate program
 - Technical Coordinator (Program Director) for Pittsburgh Science of Learning Center (PSLC).
 - Member of Science of Learning Centers Coordinating Committee (SLC-CC) (NSF-wide committee)
 - Initiate new funding programs and strategic initiatives
- Director and Founder, Center for Research of Innovative Technologies for Learning (RITL), including PALS (Pedagogical Agents Learning Systems) Research Laboratory. (2002-present). Learning Systems Institute, Florida State University, Tallahassee, FL.
Web Page: <http://ritl.fsu.edu>
- Associate Professor with tenure. Instructional Systems, Information Technology & Educational Psychology (2004-present; **currently on leave of absence**). Appointed in both College of Education and College of Information. Florida State University, Tallahassee, FL.

- Assistant Professor. Instructional Systems and Educational Psychology. (1999-2004.) Department of Educational Psychology and Learning Systems. Florida State University, Tallahassee, FL.
- Assistant Professor of Educational Technology. (1997-1999.) Department of Educational Technology. San Diego State University, San Diego, CA.
- Coordinator of Research Consulting Services. (1994 – 1996.) Office of Research, University of South Carolina, Columbia, SC.
- Research Assistant. (1993 – 1994.) Center for Excellence in the Assessment of Student Learning, University of South Carolina, Columbia, SC.
- Instructional Designer. (1992 – 1993.) Microsoft Corporation, Redmond, WA.
- Research Analyst. (1990 – 1992.) Failure Analysis Associates, Menlo Park, CA.

AWARDS / HONORS

- **Nominated by the National Academy of Sciences (NAS)** (representing computer science / social computing) as one of 80 other up-and-coming young scientists from a variety of fields to participate in the 17th NAS Annual Frontiers of Science Symposium. Held in Irvine, CA, October, 2005.
- **Nominated by NSF** to participate as one of 12 members in a Workshop on CyberLearning: Cognitive Implications of Virtual or Web-enabled Environments. Organized by the Computing Research Association and the International Society of the Learning Sciences. Held in Washington, DC, November 2004.
- **Appointed and served as member of Organizing Committee of NSF-sponsored Workshop** on “Perceptive Animated Interfaces & Virtual Humans.” Held in La Jolla, CA, April 2004. Attended by 30 leading international experts.
- **Invited to participate in NSF-sponsored Workshop** “Distributed Learning and Collaboration (DLAC)” Held in Shanghai, China, June 2006.
- **Article of the year**, from the Division for Instructional Development (DID), the largest division within the Association for Educational Communications and Technology. “Expanding preservice teachers' metacognitive awareness of instructional planning through pedagogical agents,” published in *Educational Technology Research and Development*, 2002.
- Former doctoral student Yanghee Kim won **Young Scholar Award** for paper that I co-authored with her, published in *Educational Technology Research and Development*: “A Social-Cognitive Framework for Designing Pedagogical Agents as Learning Companions.” 2005.
- Former doctoral student Sanghoon Park won **Best Paper for AERA SIG ATL/EST**, AERA 2006, for “The Effects of Seductive Augmentation and Pedagogical Agents' Role on Learning Interest, Achievement, and Attitude” based on his dissertation research funded by my NSF-grant.
- **Selected to participate in AECT (Association for Educational Communication and Technology) Research Symposium**, July 2006.
- **Finalist** for a University Teaching Award, 2003.
- **Best Research Study** (2001). Society for Information Technology and Teacher Education (SITE), Orlando, Florida. “Factors Influencing Technology Integration: A Quantitative Nationwide Study.”

- **Annual Achievement Award** (2001). Association of Educational Communication and Technology. Award for serving as Guest Editor of Tech Trends.
- **FYAP Award** (2000). Florida State University. Summer stipend of \$10,000 for project “Developing MIMIC (Multiple Intelligent Mentors Instructing Collaboratively): An agent-based environment for learning instructional design.”
- **Research and Creative Scholarly Activities Award** (1998), San Diego State University. One month fellowship for “Societies of Intelligent Mentors (SIM): A Framework for Intelligent Agent-Based Learning Environment.”
- **National research award and grant** (1997) from CCUMC (College Consortium of University Media Centers) for experimental research “Disorientation on the Web—Adventure or Distraction?”
- **National Merit Scholar.**
- Who’s Who in the World, 2003, 2004, 2005, 2006.
- Who’s Who in America (Education, Technology), 2002, 2003, 2004, 2005, 2006.
- Who’s Who of American Women, 2003, 2004, 2005, 2006.
- Who’s Who of Emerging Leaders, 2006, 2007, 2008.

PARTICIPATION IN PROFESSIONAL ASSOCIATIONS

- Association for Computing Machinery
- American Educational Research Association
- Association for Educational Communications and Technology
- Association for the Advancement of Computing in Education
- International Artificial Intelligence in Education Society
- American Association for Artificial Intelligence
- International Society for Learning Sciences

RESEARCH AFFILIATIONS

- Member of IEEE (Institute of Electrical and Electronics Engineers) Virtual Instructors Pilot Research Group.
- Visiting Researcher (April, 2000—August, 2000). Knowledge Based Systems (KBS) Institute, University of Hanover, Germany. Sponsored by Dr. Wolfgang Nejdl, Director of KBS.
- Faculty Fellow for CyberLab, (IUPUI) Indiana University Purdue University Indianapolis (1999-2001).

OTHER TEACHING POSITIONS

<u>Institution</u>	<u>Rank</u>	<u>Date</u>	<u>Major Area</u>
Univ. of Monterrey, Mexico	Visiting Prof.	February, 2000	Cognitive Psych.
University of South Carolina	Instructor	1996-1997	Educ. Psychology
Midlands Technical College	Adjunct Faculty	1996-1997	Psychology

COURSES TAUGHT

EME 6507	Design/Development of Multimedia Instruction (<i>graduate-FSU</i>)
EME 6635-6	Instructional Systems Doctoral Student Research Seminar (<i>graduate-FSU</i>)
EME 6635-2	Interactive Learning Technology Research Seminar (<i>graduate-FSU</i>)
EME 6635-1	Seminar in Advanced Instruct. Systems Problems (<i>graduate-FSU</i>)
EDP 5216	Theories of Learning & Cognition in Instruction (<i>graduate-FSU</i>)
EME 2040	Introduction to Educational Technology (<i>undergraduate-FSU</i>)
COG 001	Introduction to Cognitive Psychology (<i>graduate-Univ. Monterrey</i>)
EDTEC 470	Technologies and Teaching (<i>post-undergraduate-SDSU</i>)
ED 791B/C	Evaluation: Analysis (<i>graduate-SDSU</i>)
EDTEC 540	Educational Technology (<i>grad; online & on campus-SDSU</i>)
ED 690	Procedures and Methods of Investigation (<i>graduate-SDSU</i>)
Seminar	Instructional Design (<i>post-undergraduate-SDSU</i>)
EDUC 401P	Learners & Diversity of Learning (<i>undergraduate-USC</i>)
PSYC 201	General Psychology (<i>undergraduate-MTC</i>)

RESEARCH SUPERVISION

Major Advisor (Chair) for Doctoral Students

- (co-chair with John Keller) Il-Hyun Jo (Ph.D. 2001). “The effects of concept mapping on college students' comprehension of expository text.”
- Jeeheon Ryu (Ph.D. 2004). “A Cognitive Model of Knowledge Transformation in Authoring Hypertext.”
- Yanghee Kim (Ph.D. 2004). “Pedagogical Agents as Learning Companions: The Effects of Affect and Gender on Learning, Interest, Self-Efficacy, and Agent Persona.”
- Minjeong Kim (Ph. D. 2005). “The Effects of the Assessor and Assessee’s Roles on Preservice Teachers’ Metacognitive Awareness, Performance, and Attitude in a Technology-Related Design Task.”
- Soyoung Kim (Ph. D., 2006). “Juxtaposition of semiotic mediation with social mediation: The effect of text types and social interaction on moral judgment”
- Suzanne Ebberts (Ph. D., 2007). “The impact of agent and interaction type on learner motivation, attitude towards agent, social comparison activity, affect, and learning performance.”
- Mi Young Lee (Tristan Johnson co-chair) (Ph. D., 2007). “The effects of team-related and task-related mental models on team and individual performance.”
- Rinat Rosenberg-Kima (Ph.D Degree expected Summer 2008).

Service on Doctoral Dissertation/Advisory Committees

Riyadh Al-Hassan, Shujen Chang, Fredrika Flakes, Hong Gao, Conrad Gleber, Scott Hampton, Il-hyun Jo, Sunyoung Joung, Sanghoon Park, R. Gabrielle Reed, Zeinab Abu Samak, Cheryl Seay, E Shen, Howard Solomon, Su-Lin Tai, Kathleen Tate, Dogan Tozoglu, Carla Urena,

Ilhan Varank, Lorraine Wood, Melissa Mackal, Sanghoon Park, Sookyung Suh, David Butz, Chanhee Son, Kerry Burner, ChanMin Kim.

Student Research Supervision as part of RITL Research Center

Nicholas Arnold (B.S. Computer Science); Tramiqua Chambers (B.A., Graphic Arts); Neil Druckman (B.S., Computer Science); Rohith Gowda (Masters, Computer Science); Gabrielle Reed (Computer Science); Edward Cokeley (Ph.D. Cognitive Psychology); Melissa Mackal (Ph.D. Instructional Systems); Xiaoxia Huang (Ph.D. Instructional Systems); Jung Lim (Ph.D. Instructional Systems); Daniel Warren (Ph.D. Instructional Systems); Navdeep Singh (Masters, Computer Science); Jeeheon Ryu (Ph.D. Instructional Systems); Yanghee Kim (Ph.D. Instructional Systems); Suzanne Ebbers (Ph.D. Instructional Systems); Roberto Perez (Ph.D. Instructional Systems); Soyoung Kim (Ph.D. Instructional Systems); Miyoung Lee (Ph.D. Instructional Systems); Sanghoon Park (Ph.D. Instructional Systems); Chanhee Son (Ph.D. Instructional Systems); Katherine Carter (Ed.D. School Psychology); Rinat Rosenberg (Ph.D. Instructional Systems); Sabrina Fay (Ph.D. Instructional Systems); E Shen, (Ph.D. Instructional Systems/Computer Science); Ravikanth Vudumula, (M.S. Communication); Celeste Doerr (Ph.D. Social Psychology); Becky Liu (Ph.D. Instructional Systems); John Banks (B.S. Information Technology); Nicole Muscanell (B.S. Psychology); Ben Andrews (B.S. Computer Science); Jesse Forrest (B.S. Computer Science); Miguel Ismat-Leon (B.S. Computer Science).

Advisor for Masters Evaluation Project

Seng-Fatt Lim

Major Advisor for Masters Students: Over 150 Students

TEACHING SUPERVISION

Graduate Student Teaching Supervision for EME2040 “Introduction to Educational Technology”

Fall, 1999: Samantha Tackett, Fredrika Flakes, Doretta Gordon, Kevin Sharpton, Ilhan Varank.

Spring, 2000: Jorge Franchi, Fredrika Flakes, Kevin Sharpton, Ilhan Varank.

Summer, 2000: Fredrika Flakes, Ilhan Varank.

Fall, 2000: Helen Hu, Cindy Rohling, Howard Solomon, Fredrika Flakes.

Spring, 2001: Donna Gabrielle, Fredrika Flakes, Helen Hu, Cindy Rohling.

Summer, 2001: Ling Xiao, Fredrika Flakes.

Fall, 2001: Byungho Park, Roberto Pérez, Cindy Rohling, Ling Xiao.

Spring, 2002: Yanghee Kim, Roberto Pérez, Byungho Park, Ling Xiao.

Summer, 2002: Howard Solomon, Yanghee Kim, Byungho Park, Roberto Pérez.

Fall, 2002: J.F., Pam Sullivan, Yusra Visser, Sunyoung Joung, Byungho Park, Howard Solomon, Ling Xiao.

Spring, 2003: Soyoung Kim, Joseph Ratteray, J.F., Sunyoung Joung, Pam Sullivan.

Summer, 2003: Sunyoung Joung, Soyoung Kim, Joseph Ratteray, Howard Solomon

Fall, 2003: Sanghoon Park, Scott Dinho, Ilknur Akyildiz, Soyoung Kim, J.F., Roberto Pérez, Howard Solomon.

Spring, 2004: Sanghoon Park, Soyoung Kim, J.F., Roberto Pérez, Howard Solomon, Osmin Yigit, Dina Vygortkina.

Summer, 2004: Sanghoon Park, Soyoung Kim, J.F., Roberto Pérez, Jung Lim, Dina Vygortkina.

Fall, 2004: Sanghoon Park, Soyoung Kim, J.F., Roberto Pérez, Jung Lim, Dina Vygortkina, Howard Solomon, Osmin Yigit, Sookyung Suh.

Spring, 2005: Soyoung Kim, J.F., Roberto Pérez, Jung Lim, Dina Vygortkina, Osmin Yigit, Sookyung Suh.

Summer, 2005: Soyoung Kim, Jung Lim, Sookyung Suh

Fall, 2005: Soyoung Kim, Jung Lim, Sookyung Suh, Silvie Huang, Tatyana Pashnyak, Miyoung Lee

Spring, 2006: Soyoung Kim, Jung Lim, Silvie Huang, Tatyana Pashnyak, Miyoung Lee, Pat Heeter

ARTICLES IN PEER-REVIEWED JOURNALS

(Articles reviewed by two or more outside reviewers who had the option of rejecting the paper for publication.)

*Indicates articles indexed in the ISI Web of Knowledge.

1. *Kim, C. & **Baylor, A.L.** (in press). A Virtual Change Agent: Motivating Pre-service Teachers to Integrate Technology in Their Future Classrooms. *Educational Technology & Society*. (Journal acceptance rate < 20%)
2. *Lange, C. & **Baylor, A. L.** (2007). Teaching the Repeated Prisoner's Dilemma with a Computerized Tournament. *Journal of Economic Education*.
3. *Kim, Y., **Baylor, A. L.** & Shen, E. (2007). Pedagogical agents as learning companions: The impact of agent affect and gender. *Journal of Computer-Assisted Learning (JCAL)*, 23(03), 220-234.
4. * Kim, Y., & **Baylor, A. L.** (2006). A social-cognitive framework for pedagogical agents as learning companions. *Educational Technology Research & Development*, 54(6), 569-590. (Journal acceptance rate 8%). ==Paper won Young Scholar Award ==
5. *Kim, Y. & **Baylor, A. L.** (2006). Pedagogical agents as learning companions: The role of agent competency and type of interaction. *Educational Technology Research & Development*, 54 (3), 223-243. (Journal acceptance rate 8%).
6. *Lee, M. & **Baylor, A. L.** (2006) Designing Metacognitive Maps for Web-Based Learning. *Educational Technology & Society*, 9 (1), 344-348. (Journal acceptance rate < 20%)
7. Ryu, J. & **Baylor, A. L.** (2005). The Psychometric Structure of Pedagogical Agent Persona. *Technology, Instruction, Cognition & Learning (TICL)*, 2(4), 291-315.

This article describes the psychometric development of a new instrument to assess pedagogical agent persona. Jeeheon Ryu was my doctoral student.
8. **Baylor, A. L.** & Kim, Y. (2005). Simulating instructional roles through pedagogical agents. *International Journal of Artificial Intelligence in Education*, 15(1), 95-115. (Journal acceptance rate < 20%)

This article describes multiple research studies that test the effectiveness of operationalizing human teaching roles through pedagogical agents. Yanghee Kim was my doctoral student.
9. **Baylor, A. L.** & Kitsantas, A. (2005). Comparative Analysis and Validation of Instructivist and Constructivist Self-Reflective Tools (IPSRT and CPSRT) for Novice Instructional Planners. *Journal of Technology for Teacher Education*, 13(3), 431-455. (Journal acceptance rate: 10-15%).

This article describes experimental research to validate the effectiveness of the IPSRT and CPSRT instructional planning tools. Anastasia Kitsantas is a former FSU colleague, now at George Mason University.

10. Lee, Y., **Baylor, A. L.** & Nelson, D. (2005) Supporting Problem Solving Performance through the Construction of Knowledge Maps. *Journal of Interactive Learning Research*, 16(2), 117-131. (Journal acceptance rate: 10-15%.)

This article provides a set of guidelines to guide the use of technology-based visual representations for supporting problem-solving based on a comprehensive literature review. Youngmin Lee and David Nelson are both doctoral students in my program.

11. *Gao, H., **Baylor, A. L.**, & Shen, E. (2005) Designer Support for Online Collaboration and Knowledge Construction. *Educational Technology & Society*, 8(1), 69-79. (Journal acceptance rate < 20%)

This article presents strategies for facilitating collaborative learning in online professional development communities. Hong Gao is my doctoral student.

12. **Baylor, A. L.**, Kitsantas, A. & Hu, H. (2003). Two tools to facilitate pre-service teacher's self-regulation during instructional planning. *TechTrends*, 47(2), 45-49. (Journal acceptance rate: 25%.)

This article is directed toward instructors of pre-service teachers in higher education and presents ways to use two tools we developed and tested for supporting pre-service teachers in better self-regulating while designing instructional plans. Anastasia Kitsantas is a former FSU colleague, now at George Mason University; Haihong Hu is my doctoral student.

13. ***Baylor, A. L.** & McCormick, C. B. (2003). Thematic awareness and recall of information from text. *Reading and Writing*, 16, 247-258. (Journal acceptance rate: 15%.)

This article presents results from an experimental study that investigated the effects of a theme on students' metacognitive awareness while reading. Chris McCormick is a professor of educational psychology at University of New Mexico.

14. ***Baylor, A. L.** & Ryu, J. (2003). Does the presence of image and animation enhance pedagogical agent persona? *Journal of Educational Computing Research*, 28(4), 373-395. (Journal acceptance rate: 11-20%.)

This article presents results from an experimental study that investigated the impact of the presence of pedagogical agent image and animation on students' perceptions of its persona. Jeeheon Ryu is my doctoral student.

15. ***Baylor, A. L.** & Ritchie, D.R. (2002). What factors facilitate teacher skill, teacher morale, and perceived student learning in technology-using classrooms? *Computers and Education*, 39(4), 395-414. (Journal acceptance rate: 15%.)

This article presents results from a comprehensive nationwide study on technology integration in schools. Donn Ritchie is my former colleague at San Diego State University.

16. ***Baylor, A. L.** (2002). Expanding pre-service teachers' metacognitive awareness of instructional planning through pedagogical agents. *Educational Technology Research & Development*, 50(2), 5-22. (Journal acceptance rate: 11-20%.) ***Best Research Paper*** of 2002-2003, awarded by Association of Educational Communications & Technology.

This article presents results from a two-factor experimental study of the impact of employing pedagogical agents (instructivist and/or constructivist) to represent different epistemological views towards instructional planning.

17. ***Baylor, A. L.** (2002). Agent-based learning environments for investigating teaching and learning. *Journal of Educational Computing Research*, 26(3), 249-270. (Journal acceptance rate: 11-20%.)

This article presents a literature review and preliminary research results regarding the potential of pedagogical agents to serve as more ecologically valid simulators of teachers and students, and thus facilitate research of teaching and learning.

18. **Baylor, A. L.** (2001). Permutations of control: Cognitive considerations for agent-based learning environments. *Journal of Interactive Learning Research*, 12(4), 403-425. (Journal acceptance rate: 6-10%.)

This article presents a comprehensive model for pedagogical agent design that focuses on how to best design agents to promote cognitive processing.

19. **Baylor, A. L.** (2001). Incidental learning and perceived disorientation in a web-based environment: Internal and external factors. *Journal of Educational Multimedia and Hypermedia*, 10(3), 227-251. (Journal acceptance rate: 10-19%.)

This article presents results from an experimental study investigating the influence of navigation mode, distracting links, together with personality attributes on perceived disorientation and incidental learning in web navigation

20. ***Baylor, A. L.** (2001). A U-Shaped model for the development of intuition by expertise. *New Ideas in Psychology*, 19(3), 237-244. (Journal acceptance rate: 15%.)

This article presents a comprehensive model (building on Baylor, 1997 article) of the development of intuition according to a person's level of expertise.

21. ***Kitsantas, A. & Baylor, A. L.** (2001). The impact of the instructional planning self-reflective tool (IPSRT) on pre-service teachers' performance, disposition, and self-efficacy beliefs regarding systematic instructional planning. *Educational Technology Research & Development*, 49(4), 101-110. (Journal acceptance rate: 11-20%.)

This article presents results from an experimental study where we tested the effects of the IPSRT tool that we previously constructed to facilitate instructional planning for pre-service teachers. Anastasia Kitsantas is a former FSU colleague, now at George Mason University.

22. ***Baylor, A. L.** (2000). Beyond butlers: Intelligent agents as mentors. *Journal of Educational Computing Research*, 22(4), 373-382. (Journal acceptance rate: 11-20%.)

This article synthesizes the literature to make a case for the potential of intelligent agents to serve as mentors for learning.

23. **Baylor, A. L.** (2000). Cognitive strategies for technology and training. *TechTrends*, 44(5), 13-15. (Journal acceptance rate: 25%.)

This article presents empirically-derived strategies for implementing technology-related training solutions.

24. ***Baylor, A. L.** (1997). A three-component conception of intuition: Immediacy, sensing relationships, and reason. *New Ideas in Psychology*, 15(2), 185-194. (Journal acceptance rate: 15%.)

This article presents a comprehensive model of the cognitive process of intuition by synthesizing extensive interdisciplinary literature.

25. **Ritchie, D.R. & Baylor, A. L.** (1997). Teaching technology: Finding a workable strategy. *TechTrends*, 42(4), 27-30. (Journal acceptance rate: 25%.)

This article describes different instructional strategies for teaching introductory classes in educational technology. Donn Ritchie is my former colleague at San Diego State University.

ARTICLES IN REFEREED CONFERENCE PROCEEDINGS

Note that these articles were also presented as conference papers—see later section for a listing of *other* refereed conference papers that were not included in proceedings.

1. Rosenberg-Kima, R. B., Plant, E. A., **Baylor, A. L.** & Doerr, C. (2007). *Changing Attitudes and Performance with Computer-generated Social Models*. Proceedings of Artificial Intelligence in Education (AI-ED) 2007. Marina Del Ray, California.
2. Rosenberg-Kima, R. B., **Baylor, A. L.**, Plant, E. A., Doerr, C. (2007). *The importance of interface agent visual presence: Voice alone is less effective in impacting young women's attitudes toward engineering*. Proceedings of Persuasive 2007. Stanford, California.
3. **Baylor, A. L.**, Rosenberg-Kima, R. B., & Plant, E. A. (2006). *Interface Agents as Social Models: The Impact of Appearance on Females' Attitude Toward Engineering*. Proceedings of CHI 2006 (Conference on Human Factors in Computing Systems). Montreal, Canada.
4. **Baylor, A. L.**, & Rosenberg-Kima, R. B. (2006). *Interface agents to alleviate online frustration*. Proceedings of International Conference of the Learning Sciences, Bloomington, Indiana.
5. Kim, Y, Hamilton, E., Zheng, J., & **Baylor, A. L.** (2006). Scaffolding Learner Motivation through a Virtual Peer. Proceedings of International Conference of the Learning Sciences, Bloomington, Indiana.
6. **Baylor, A. L.**, Kim, S., Son, C., & Lee, M. (2006). Effective Pedagogical Agent Nonverbal Communication for Different Learning Outcomes. Proceedings of AERA (American Educational Research Association), San Francisco, CA.
7. Kim, C. & **Baylor, A. L.** (2006). A pedagogical agent as a change agent in an organization. Paper presented at SALT (Society for Applied Learning Technology), Orlando, FL.
8. **Baylor, A. L.**, & Plant, E. A. (2005). Pedagogical agents as social models for engineering: The influence of appearance on female choice. In C.-K. Looi, G. McCalla, B. Bredeweg & J. Breuker (Eds.), *Artificial intelligence in education: Supporting learning through intelligent and socially informed technology* (Vol. 125, pp. 65-72). Amsterdam, The Netherlands: IOS Press.
9. **Baylor, A. L.**, Warren, D., Park, S., Shen E., & Perez, R (2005) *The impact of frustration-mitigating messages delivered by an interface agent*. In C.-K. Looi, G. McCalla, B. Bredeweg & J. Breuker (Eds.), *Artificial intelligence in education: Supporting learning through intelligent and socially informed technology* (Vol. 125, pp. 73-79). Amsterdam, The Netherlands: IOS Press.
10. **Baylor, A. L.**, Cole, R. Graesser, A. & Johnson, L. (2005) *Pedagogical agent research and development: Next steps and future possibilities*. In C.-K. Looi, G. McCalla, B. Bredeweg & J. Breuker (Eds.), *Artificial intelligence in education: Supporting learning through intelligent and socially informed technology* (Vol. 125, p. 985). Amsterdam, The Netherlands: IOS Press.
11. **Baylor, A. L.**, Kim, S., Son, C. & Lee, M. (2005) *Designing effective nonverbal communication for pedagogical agents*. In C.-K. Looi, G. McCalla, B. Bredeweg & J. Breuker (Eds.), *Artificial intelligence in education: Supporting learning through intelligent and socially informed technology* (Vol. 125, pp. 744-746). Amsterdam, The Netherlands: IOS Press.
12. Warren, D., Shen E., Park, S., **Baylor, A. L.** & Perez, R. (2005). *Adult Learner Perceptions of Affective Agents*. In C.-K. Looi, G. McCalla, B. Bredeweg & J. Breuker (Eds.), *Artificial intelligence in education: Supporting learning through intelligent and socially informed technology* (Vol. 125, pp. 944-946). Amsterdam, The Netherlands: IOS Press.
13. Ebbers, S. & **Baylor, A. L.** (2005). *Observational Learning from Social Model Agents: Examining the Inherent Processes*. In C.-K. Looi, G. McCalla, B. Bredeweg & J. Breuker (Eds.),

Artificial intelligence in education: Supporting learning through intelligent and socially informed technology (Vol. 125, p. 958). Amsterdam, The Netherlands: IOS Press.

14. **Baylor, A. L.** (2005). *Preliminary Design Guidelines for Pedagogical Agent Interface Image*. Proceedings of the International Conference on Intelligent User Interfaces, San Diego, CA.
15. **Baylor, A. L.** (2005). *The Impact of Pedagogical Agent Image on Affective Outcomes*. Proceedings of Workshop “Affective Interactions: The Computer in the Affective Loop” at the International Conference on Intelligent User Interfaces, San Diego, CA.
16. **Baylor, A. L.** & Kim, Y. (2004). *Pedagogical Agent Design: The Role of Agent Realism, Gender, Ethnicity, and Instructional Role*. Proceedings of International Conference on Intelligent Tutoring Systems, Maceio, Brazil.
17. **Baylor, A. L.**, Shen, E. & Warren, D. (2004). *Supporting learners with math anxiety: The impact of pedagogical agent emotional and motivational support*. Proceedings of at Workshop on Social and Emotional Intelligence in Learning Environments at the International Conference on Intelligent Tutoring Systems, Maceio, Brazil.
18. **Baylor, A. L.** (2004). *Designing pedagogical agents to address diversity in learning*. Proceedings of International Conference of the Learning Sciences, Santa Monica, CA.
19. **Baylor, A. L.** (2004). *Implementing Pedagogical Agents to Support Metacognition*. Proceedings of American Educational Research Association, San Diego, CA.
20. Lange, C. & **Baylor, A. L.** (2004). *Using Computer Based Technology for Teaching Game Theory in a Constructivist Way*. Proceedings of American Economic Association Meeting, Washington, D.C.
21. **Baylor, A. L.** & Kim, Y. (2003). *The Role of Gender and Ethnicity in Pedagogical Agent Perception*. Proceedings of E-Learn (World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education), Phoenix, AZ.
22. **Baylor, A. L.**, Shen, E. & Huang, X. (2003). *Which Pedagogical Agent do Learners Choose? The Effects of Gender and Ethnicity*. Proceedings of E-Learn (World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education), Phoenix, AZ.
23. Kim, Y., **Baylor, A. L.** & Reed, G. (2003). *The Impact of Image and Voice with Pedagogical Agents*. Proceedings of E-Learn (World Conference on E-Learning in Corporate, Government, Healthcare & Higher Education), Phoenix, AZ.
24. **Baylor, A. L.** & Ebbers, S. (2003). *Evidence that multiple agents facilitate greater learning*. Proceedings of International Artificial Intelligence in Education (AI-ED) Conference, Sydney, Australia.

This paper describes the results of an experimental study investigating the effects of implementing multiple pedagogical agents to promote learning. Suzanne Ebbers is my doctoral student.
25. **Baylor, A. L.** (2003). *The split-persona effect with pedagogical agents*. Proceedings of Workshop “Embodied Conversational Characters as Individuals” at the Autonomous Agents & Multi-Agent Systems (AAMAS), Melbourne, Australia.

This paper presents an experimental study where the functionality of one pedagogical agent is operationalized via one or two agents, and it is found that two agents have a significantly positive effect on learning.
26. **Baylor, A. L.** & PALS Research Group (2003). *The impact of three pedagogical agent roles*. Proceedings of Autonomous Agents & Multi-Agent Systems (AAMAS), Melbourne, Australia.

This paper presents the design, operationalization, and validation of three different pedagogical agent roles: Mentor, Expert, and Motivator. PALS Research Group consists of my graduate student research team.

27. **Baylor, A. L. & Ryu, J. (2003).** *The API (Agent Persona Instrument) for assessing pedagogical agent persona.* Proceedings of ED-MEDIA (World Conference on Educational Multimedia, Hypermedia and Telecommunications), Honolulu, HI.

This paper presents a new instrument to assess agent persona, and the corresponding exploratory and confirmatory factor analysis results. Jeeheon Ryu is my doctoral student.

28. **Baylor, A. L. & Ebbers, S. (2003).** *The pedagogical agent split-persona effect: When two agents are better than one.* Proceedings of ED-MEDIA (World Conference on Educational Multimedia, Hypermedia and Telecommunications), Honolulu, HI.

This paper presents an experimental study that shows that the presence of two pedagogical agents (versus just one with identical functionality) have a significantly positive effect on learning. Suzanne Ebbers is my doctoral student.

29. **Baylor, A. L., Ryu, J. & Shen, E. (2003).** *The effects of pedagogical agent voice and animation on learning, motivation and perceived persona.* Proceedings of ED-MEDIA (World Conference on Educational Multimedia, Hypermedia and Telecommunications), Honolulu, HI.

This paper presents results from a two-factor experimental study that investigated the effects of human/computer-generated voice and the absence/presence of animation on learning and motivation. Jeeheon Ryu and E Shen are my doctoral students.

30. **Baylor, A. L. & Kim, Y. (2003).** *Validating pedagogical agent roles: Expert, Motivator, and Mentor.* Proceedings of ED-MEDIA (World Conference on Educational Multimedia, Hypermedia and Telecommunications), Honolulu, HI.

This paper presents results from two controlled validation studies of three pedagogical agent roles. Yanghee Kim is my doctoral student.

31. **Gussak, D. & Baylor, A. L. (2003).** *Constructing agents for self-learning: Animated agents as expressive vehicles.* Proceedings of ED-MEDIA (World Conference on Educational Multimedia, Hypermedia and Telecommunications), Honolulu, HI.

This paper describes a new area of research—having students or clients construct pedagogical agents as a way to express themselves. David Gussak is an FSU colleague in Art Therapy.

32. **Baylor, A. L. & Kitsantas, A. (2003).** Preservice teacher instructional planning support for well- and ill-defined instructional problems. *Technology and Teacher Education Annual. Vol. 3.,* 1636-1638.

This paper describes an experimental study that employs the IPSRT and CPSRT self-regulatory tools for ill- and well- defined instructional problems. Anastasia Kitsantas is a former FSU colleague, now at George Mason University.

33. **Gao, H., Baylor, A. L. & Shen, E. (November, 2002).** *Strategies for designers to support collaborative learning in professional development online communities.* Proceedings of AECT (Association for Educational Communication and Technology) International Conference. Dallas, TX.

This paper presents empirically-based strategies for facilitating collaborative learning in online professional development communities Hong Gao and E Shen are my doctoral students.

34. **Baylor, A. L. & Chang, S. (2002).** *Pedagogical agents as scaffolds: The role of feedback timing, number of agents, and adaptive feedback.* Proceedings of International Conference of the Learning Sciences. Seattle, WA.

This paper presents results from an experimental study of agent source (1 or 2 agents), adaptivity, and type of feedback (summative or just-in-time) on learning outcomes. Shujen Chang is a former doctoral student (graduated in Spring 2002).

35. **Baylor, A. L.** (2001). *The effects of MIMICing instructional theory with MIMIC (Multiple Intelligent Mentors Instructing Collaboratively), an agent-based learning environment.* Proceedings of Association for Educational Communications and Technology (AECT), Atlanta, Georgia.

This paper presents results from an experimental study of multiple pedagogical agents representing different instructional pedagogies.

36. **Baylor, A. L., Kitsantas, A. & Hu, H.** (2001). *Introducing the IPSRT (Instructional Planning Self-Reflective Tool) and CPSRT (Constructivist Planning Self-Reflective Tool): Self-regulatory tools to promote instructivist and constructivist instructional planning for preservice teachers.* Proceedings of Association for Educational Communications and Technology (AECT), Atlanta, GA.

This paper presents ways to use two tools (IPST, and CPSRT) we developed and tested for supporting pre-service teachers in better self-regulating while designing instructional plans. Anastasia Kitsantas is a former FSU colleague, now at George Mason University; Haihong Hu is a doctoral student.

37. **Baylor, A. L.** (2001). *Cognitive foundations for agent-based learning environments.* Proceedings of International Conference of Advanced Learning Technologies (ICALT), Madison, WI.

This paper presents a model for pedagogical agent design that focuses on how to design agents to promote cognitive processing.

38. **Baylor, A. L.** (2001). *Investigating multiple pedagogical perspectives through MIMIC (Multiple Intelligent Mentors Instructing Collaboratively).* Proceedings of Artificial Intelligence in Education (AI-ED) International Conference, San Antonio, TX.

This paper presents results from an experimental study of multiple pedagogical agents representing different instructional pedagogies.

39. **Baylor, A. L. & Kitsantas, A.** (2001). Promoting instructional planning: An experiment. *Technology and Teacher Education Annual, vol. 2*, 1044-1049. Proceedings of Society for Information Technology & Teacher Education (SITE) Conference. Orlando, FL.

This paper presents results from an experimental study where we investigated the effects of the IPSRT tool with pre-service teachers. Anastasia Kitsantas is a former FSU colleague, now at George Mason University.

40. **Baylor, A. L. & Ritchie, D.** (2001). Factors influencing technology integration: A quantitative nationwide study. *Technology and Teacher Education Annual, vol. 3*, pp. 2666-2671. Paper presented at Society for Information Technology & Teacher Education (SITE) Conference. Orlando, FL. *Best Research Paper* of conference.

This paper presents results from a comprehensive nationwide study on technology integration in schools. Donn Ritchie is my former colleague at San Diego State University.

41. **Baylor, A. L. and Jafari, A.** (1999). *What are the possibilities of intelligent agents for education?* Proceedings of International Conference of Technology in Education (ICTE), Tampa, FL.

This paper presents possibilities of intelligent agents as mediators for learning. Ali Jafari is a professor on the computer science faculty at Indiana University.

42. **Baylor, A. L.** (1999). *Foundations for designing MIMIC, an intelligent agent-based learning environment*. Proceedings of International Conference of Technology in Education (ICTE), Tampa, FL.

This paper describes the underlying conceptual framework of the MIMIC agent-based environment.

43. **Baylor, A. L.** (1999). *Multiple Intelligent Mentors Instructing Collaboratively (MIMIC): Developing a theoretical framework*. Proceedings of International Cognitive Technology Conference, San Francisco, CA. ERIC document ED 438790.

This paper describes the underlying conceptual framework of the MIMIC agent-based environment.

44. **Baylor, A. L.** (1999). *Psychological factors influencing web navigation*. Proceedings of Association for Educational Communications and Technology (AECT), Houston, TX. (ERIC document ED436173.)

This paper presents results from an experimental study investigating the influence of navigation mode, distracting links, together with personality attributes on perceived disorientation and incidental learning in web navigation

45. **Baylor, A. L.** & Kozbe, B. (1998). *A personal intelligent mentor for promoting metacognition in solving logic word puzzles*. Proceedings of Workshop "Current Trends and Applications of Artificial Intelligence in Education" at The Fourth World Congress on Expert Systems, Mexico City, Mexico. (ERIC document ED 438791.)

This paper presents the conceptualization of an intelligent agent to scaffold problem-solving processes. Barcin Kozbe is a computer scientist at Ericsson, Inc.

46. **Baylor, A. L.** (1998). *Disorientation on the web—Adventure or distraction?* Proceedings of WebNet 98- World Conference of the WWW, Internet and Intranet, Orlando, Florida.

This paper presents results from an experimental study investigating the influence of navigation mode, distracting links, together with personality attributes on perceived disorientation and incidental learning in web navigation

ARTICLES IN NON-REFEREED JOURNALS

1. **Baylor, A. L.** (2007) Introduction to Special Issue on Pedagogical Agents. *Educational Technology*.
2. **Baylor, A. L.** (2007) Pedagogical Agents as a Social Interface. *Educational Technology*.
3. Kim, Y. & **Baylor, A. L.** (2007) Pedagogical Agents as Social Models to Influence Learner Attitudes. *Educational Technology*.
4. **Baylor, A. L.**, Kitsantas, A., & Chung, H. (2001). The Instructional Planning Self-Reflective Tool (IPSRT): A Method for Promoting Effective Lesson Planning. *Educational Technology*, 41(2), 56-59. (Journal acceptance rate: 15% for articles reviewed by editor)

This article presents empirical results to substantiate the IPSRT, a tool we developed to promote self-regulation for pre-service teachers while instructional planning. Anastasia Kitsantas is a former FSU colleague, now at George Mason University; Hyummi Chung is a former doctoral student (graduated Spring 2001). *Educational Technology* is considered to be a key journal in the field even though it does employ a traditional peer review process.

5. Kitsantas, A. & **Baylor, A. L.** & Hu, H. (2001). The Constructivist Planning Self-Reflective Tool: Facilitating a Constructivist Instructional Planning Approach. *Educational Technology*, 41(6), 39-43. (Journal acceptance rate: 15% for articles reviewed by editor)

This article presents empirical results to substantiate the CPSRT, a tool we developed to promote self-regulation for pre-service teachers while engaged in constructivist-oriented instructional planning. Anastasia Kitsantas is a former FSU colleague, now at George Mason University; Haihong Hu is a doctoral student.

Educational Technology is considered to be a key journal in the field even though it does employ a traditional peer review process.

6. **Baylor, A. L.** (1999). Intelligent agents as cognitive tools for education. *Educational Technology*, 39(2), 36-40. (Journal acceptance rate: 15% for articles reviewed by editor)

This article describes the conceptual and theoretical foundations of intelligent agents as tools to mediate the learning process. *Educational Technology* is considered to be a key journal in the field even though it does employ a traditional peer review process.

TECHNICAL REPORTS

Co-author of NSF and CRA (Computing Research Association) report on “Cyberinfrastructure for Education and Learning for the Future: a Vision and Research Agenda” 2005.

Ritchie, D. & **Baylor, A. L.** (1999). What Gets Results? An Analysis of Effective Technology-Integrating Schools. Technical report for CompassLearning Inc.

Hill, C. C., Fullerton, H. L., **Baylor, A. L.**, Ryan, J. R. & Kuhs, T. M. (1994). A National Survey of the Frequency and Formats of Statewide Mathematics Assessment Programs. Columbia, SC: The South Carolina Center for Excellence in Assessment of Student Learning, University of South Carolina.

ARTICLES IN REVIEW / IN PROGRESS

Kim, S. & **Baylor, A. L.** Mediated Moral Judgment by Semiotic Texts and Social Interaction: Investigating the Influence of Mediation by Semiotic Analysis. In review with *Journal of the Learning Sciences*.

Baylor, A. L. The split persona effect with pedagogical agents. To submit to *International Journal of Artificial Intelligence in Education*.

Baylor, A. L. & Kitsantas, A. Instructional planning support for ill- vs well-structured instructional scenarios.

FUNDED GRANTS

<u>Researcher(s)/ Roles</u>	<u>Amount Received</u>	<u>Date</u>	<u>Funding Organization</u>	<u>Title</u>
Mukherjee, A. <i>Principal Investigator</i> Baylor, A. L. <i>Co-Principal Investigator (FSU PI)</i>	\$553,000 (FSU: \$199,575)	2007- 2010	National Science Foundation	Understanding mental models of expertise in construction management using interactive adaptive simulations
Baylor, A. L. <i>Principal investigator</i> Plant, A. <i>Co-Principal Investigator</i>	\$499,995	2004- 2007	National Science Foundation	Pedagogical agents as social models: Challenging gender-related stereotypes of engineering
Baylor, A. L. <i>Principal investigator</i> Plant, A. <i>Co-Principal Investigator</i>	\$57,500	2005- 2007	National Science Foundation	REU Grant Supplement to support Interdisciplinary Undergraduate Research in IT/Social Psychology
Baylor, A. L.	\$43,995	2004-	National Science Foundation	ITR (Information Technology)

<i>Principal investigator</i>		2006		Research) Grant Supplement to Investigate Agent Affect
Baylor, A. L. <i>Principal investigator</i>	\$6,000	2004-2005	National Science Foundation	REU (Research Experiences for Undergraduates) supplement.
Baylor, A. L. <i>Principal investigator</i>	\$7,500	2004	Council for Instruction, Florida State University	Systematic Innovations for EME2040: "Introduction to Educational Technology"
Baylor, A. L. <i>Principal investigator</i>	\$10,000	2003-2004	National Science Foundation, Research Experiences for Undergraduates. CISE (Computer Information Sciences & Engineering) Directorate.	REU (Research Experiences for Undergraduates): Interdisciplinary pedagogical agent research
Baylor, A. L. <i>Principal investigator</i>	\$380,000	2002-2006	National Science Foundation, Information Technology Program. CISE (Computer Information Sciences & Engineering) Directorate, IIS (Intelligent Information Systems).	Systematic experimentation of the role of pedagogical agent features in promoting learning and motivation
Baylor, A. L. <i>Principal investigator</i>	\$2,500	2001	Dean's Summer Planning Grant. Council on Research in Education (CORE).	Experimental research with Multiple Intelligent Mentors Instructing Collaboratively (MIMIC)
Baylor, A. L. <i>Principal investigator</i>	\$9,360	2000	Florida State University Council on Research and Creativity Planning Grant.	Multiple Intelligent Mentors Instructing Collaboratively (MIMIC): An agent-based learning environment for investigating instructional theory
Baylor, A. L. <i>Principal investigator</i>	\$10,000	2000	First Year Assistant Professor Award, Florida State University.	Developing MIMIC (Multiple Intelligent Mentors Instructing Collaboratively): An agent-based environment for learning instructional design
Baylor, A. L. Ritchie, D.R. <i>Co-Principal investigators</i>	\$84,709	1998-1999	Jostens Learning Corporation	An analysis of factors associated with successful school technology integration
Baylor, A. L. <i>Principal investigator</i>	One month summer fellowship	1998	Research and Creative Scholarly Activities Award, San Diego State University.	Societies of Intelligent Mentors (SIM): A framework for the intelligent agent-based learning environment
Baylor, A. L. <i>Principal investigator</i>	\$1,850	1998	Dean's Grant, San Diego State University	Curriculum innovations for EDTEC 470 "Technologies for Teachers"
Baylor, A. L. <i>Principal investigator</i>	\$900	1998	Dean's Grant, San Diego State University	Intelligent agents for education
Baylor, A. L. <i>Principal investigator</i>	\$2,000	1997	Consortium of College and University Media Centers (CCUMC)	Disorientation on the web--Adventure or distraction?
Baylor, A. L.	\$800	1997	Dean's grant, College of Education, San Diego State	Effects of designing instruction for text

<i>Principal investigator</i>	University
Federally-funded:	\$1,629,863
<u>TOTAL</u>	<u>\$1,664,109</u>

SIGNIFICANT UNFUNDED RESEARCH PROPOSALS

Baylor, A. L. <i>Principal investigator</i>	\$275,000	National Institute of Health	Systematically REVEALing Subtle Racial/Ethnic Bias in Medical Student Interactions with Virtual Patients
Plant, A. <i>Co-Principal Investigator</i>			
Baylor, A. L. <i>Principal investigator</i>	\$253,000	National Science Foundation	Frustration in Online Learning: A systematic exploration of task and computer induced frustration for introductory engineering students
Keller, J. <i>Co-Principal Investigator</i>			
Baylor, A. L. <i>Principal investigator</i>	\$597,000	National Science Foundation	Affordances and Constraints of Avatars for Attitude Change, 2005.
Baylor, A. L. <i>Principal investigator</i>	\$797,174	National Science Foundation	How does the general public “Construct an Instructor?” A qualitative approach to pedagogical agent design research. 2004. Review Panel recommended funding, rated it as “Highly Competitive”
Hamilton, E. Baylor, A. L. <i>Co-Principal investigator</i>	\$200,000	National Science Foundation	Science of Learning Center Catalyst Proposal: Center for Research on Advanced Tools In Vitalizing Education (CREATIVE). 2005
Baylor, A. L. <i>Principal investigator</i>	\$98,235	National Science Foundation	Exploring the impact of agent-delivered messages on student interest in computer science. 2005
Jeong, A. Baylor, A. L. <i>Co-Principal investigator</i>	\$488,372	National Science Foundation	Developing Computational Models of Collaborative Argumentation by Measuring the Effects of Communication Styles on Interaction Patterns in Computer-Mediated Communication. 2004
Baylor, A. L. <i>Principal investigator</i>	\$1,300,000	National Science Foundation	Multiple Intelligent Mentors Instructing Collaboratively (MIMIC): An intelligent agent-based learning environment for learning instructional design. 1999

OTHER NATIONAL AND INTERNATIONAL REFEREED PRESENTATIONS

This section lists refereed presentations that were not included as part of formal conference proceedings.

Doerr, C.E., Plant, E. A. Rosenberg-Kima, R. B., & **Baylor, A. L.** (February, 2008) Increasing young women’s interest in engineering: Targeting autonomy, relatedness, and competence. 9th Annual Meeting of the Society for Personality and Social Psychology. Albuquerque, NM.

Kim, ChanMin, Keller, J. & **Baylor, A. L.** (October, 2007). Effects of Agent versus Text

Delivered Motivational and Volitional Messages on the Attitudes of Introductory Engineering Students, AECT (Association of Educational Communication and Technology), Los Angeles, CA.

Baylor, A. L. & Rosenberg-Kima, R. (April, 2007) *Interface Agents to Alleviate Frustration in Online Learning*. Presented at AERA (American Educational Research Association), Chicago, IL.

Baylor, A. L. & Rosenberg-Kima, R. (April, 2007) *Interface Agents as Social Models: The Impact of Appearance on Females' Attitude Toward Engineering*. Presented at AERA (American Educational Research Association), Chicago, IL.

Kim, Soyoung & **Baylor, A. L.** (April, 2007). *The Effect of Juxtaposing Semiotic Mediation With Social Mediation on Moral Judgment Competency: Drawing Individual Growth Curves by Hierarchical Linear Modeling*. Presented at AERA (American Educational Research Association), Chicago, IL.

Kim, Soyoung & **Baylor, A. L.** (April, 2007). *Semiotic Analysis: The Influence of Mediation on Moral Reasoning and Moral Judgment*. Presented at AERA (American Educational Research Association), Chicago, IL.

Baylor, A. L. & Plant, E. A. (October, 2007). *Systematic Research of Young Women's Stereotypes and Attitudes Toward Engineering Through Computer-Based Avatars: The Impact of Appearance and Message*. Presented at Grace Hopper Celebration of Women and Computing, San Diego, CA.

Weiss, M. L. J., Volk, R. J., Kramer, R. K., Hawley, S. T., Whitney, S. N., Brown, P.H., **Baylor, A. L.**, Spann, S. J. (October, 2006). *Utilizing a microworld environment with a pedagogical agent for decision support in breast cancer risk reduction among low literacy women: Preliminary Findings*. Presented at Annual Meeting of Society from Medical Decision Making. Cambridge, MA.

Park, S. Keller, J. & **Baylor, A. L.** (October, 2006) *Promoting Positive Emotion in Pedagogical Agent Embedded Learning*. Presented at AECT (Association for Educational Communication and Technology) International Conference. Dallas, TX.

Son, C. & **Baylor, A. L.** (October, 2006). *Handheld-Based Pedagogical Agents as a Social Interface in Independent Mobile Learning*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Dallas, TX.

Son, C. & **Baylor, A. L.** (October, 2006). *The Effects of a Handheld-Based Pedagogical Agent on Learning, Agent Persona, and Motivation*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Dallas, TX.

Son, C. & **Baylor, A. L.** (October, 2006). *The Impact of Pedagogical Agents' Properties: A Review of Empirical Research*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Dallas, TX.

Park, S. Keller, J. & **Baylor, A. L.** *The Effects of Seductive Augmentation and Agent Role on Learning Interest, Achievement, and Attitude*. Presented at AERA (American Educational Research Association), San Francisco, CA.

Baylor, A. L., & Plant, E. A. (2006). *The Influence of Computer-Based Social Models' Appearance on Undergraduate Females' Beliefs and Stereotypes Toward Engineering*. Proceedings of AERA (American Educational Research Association), San Francisco, CA.

Plant, E. A., Doerr, C., **Baylor, A. L.**, Carter, K. (January, 2006). *The impact of computer-based social models on middle school students' attitudes and performance*. Paper presented at SPSP (Society for Personality and Social Psychology) Annual Meeting, Palm Springs, CA.

Baylor, A. L. & Plant, E. A. (October, 2005). *Pedagogical agents as social models for engineering: The influence of agent appearance*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Orlando, FL.

Baylor, A. L. & Kim, S., Son, C., & Lee, M. (October, 2005). *Design considerations for pedagogical agent nonverbal communication*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Orlando, FL.

Lee, M. & **Baylor, A. L.** (October, 2005). *Development of a Supportive Pedagogical Agent for Facilitating Shared Understanding in Computer-Supported Problem-Based Learning*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Orlando, FL.

Lee, M. & **Baylor, A. L.** (October, 2005). *Enhancing Students' Critical Thinking Skills in Web-Based Bulletin Board Discussions with a Socratic Pedagogical Agent*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Orlando, FL.

Kim, Y. & **Baylor, A. L.** (April, 2005) *The Impact of Affective Expression and Gender of a Learning Companion*. Paper presented at AERA (American Educational Research Association). Montreal, Canada.

Kim, Y. & **Baylor, A. L.** (April, 2005) *Pedagogical Agents as Learning Companions: Building Empathetic Relationships with Learners*. Paper presented at AERA (American Educational Research Association). Montreal, Canada.

Shen, E., Warren, D. & **Baylor, A. L.** (October, 2004). *The effect of agent affect on learning, motivation, and perceived agent persona*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Chicago, IL.

Kim, Y., **Baylor, A. L.** & Reed, G. (October, 2004) *Pedagogical Agents' Persona: Which Affects More, Image or Voice?* Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Chicago, IL.

Lange, C. & **Baylor, A. L.** (July, 2004) *Computer-based Simulation for Constructivist Instruction in Game Theory*. Western Economic Association International, Vancouver, BC.

Lee, Y., **Baylor, A. L.** & Nelson, D. (July, 2004). *Modeling Transformation Process of Content Knowledge Through Authoring Hypertext*. International Conference on Education and Information Systems, Technologies and Applications (EISTA 2004), Orlando, FL.

Baylor, A. L., Shen, E., Kim, Y. & Huang, X. (October, 2003). *The Effects of Pedagogical Agent Gender and Ethnicity on Student Motivation*. Paper presented at TAPIA (Richard Tapia Celebration of Diversity in Computing), Atlanta, GA.

Baylor, A. L. & Ebberts, S. (October, 2003). *The impact of multiple pedagogical agents on learning: An experimental study*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Anaheim, CA.

Kim, Y. & **Baylor, A. L.** (October, 2003). *Design features for developing pedagogical agents as experts, motivators, and mentors: A validation study*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Anaheim, CA.

Ryu, J. & **Baylor, A. L.** (October, 2003). *How human-like is the agent? A new instrument to assess pedagogical agent persona*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Anaheim, CA.

Baylor, A. L. & Ryu, J. (October, 2003). *An experimental study of pedagogical agent voice and animation*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Anaheim, CA.

Lange, C. & **Baylor, A. L.** (June, 2003). *ATMUS*. Paper presented at European Applied Business Research Conference, Venice, Italy.

Baylor, A. L. & Chang, S. (April, 2003). *Cognitive load issues with animated pedagogical agents: an experimental study of timing, source, and adaptivity of agent feedback*. Paper presented at AERA (American Educational Research Association), Chicago, IL.

Lange, C. & **Baylor, A. L.** (March, 2003). *A constructivist way to teach game theory*. 15th Annual Lilly Conference on College Teaching–West. Pomona, CA.

Baylor, A. L. & Ryu, J. (November, 2002). *Effects of image and animation on pedagogical agent persona*. Paper presented at AECT (Association for Educational Communication and Technology) International Conference. Dallas, TX.

Lange, C. & **Baylor, A. L.** (July, 2002). *ATMUS: A computer based tool to teach game theory*. Paper presented at WEAI (Western Economic Association International) Conference. Seattle, WA.

Baylor, A. L. (April, 2002). *Expanding metacognitive awareness of instructional planning with MIMIC (Multiple Intelligent Mentors Instructing Collaboratively), an agent-based learning environment*. Paper presented at American Educational Research Association (AERA), New Orleans, LA.

Baylor, A. L. & Kitsantas, A. (April, 2002). *Instructivist and constructivist self-regulatory tools for pre-service teachers: The IPSRT and CPSRT*. Paper presented at American Educational Research Association (AERA), New Orleans, LA.

Baylor, A. L. & Kitsantas, A. (November, 2001). *A comparison of instructivist and constructivist self-regulatory tools for instructional planning*. Paper presented at Association for Educational Communication and Technology (AECT), Atlanta, GA.

Kitsantas, A. & **Baylor, A. L.** (November, 2001). *The impact of the IPSRT (Instructional Planning Self-Reflective Tool) on pre-service teachers' skills and affect towards instructional planning*. Paper presented at Association for Educational Communication and Technology (AECT), Atlanta, GA.

Kitsantas, A. & **Baylor, A. L.** (August, 2001). *Enhancing pre-service teacher's performance, attitudes and self-efficacy beliefs regarding instructional planning*. Paper presented at American Psychological Association (APA), San Francisco, CA.

Baylor, A. L. (April, 2001). *Incidental learning and perceived disorientation on WWW: Internal and external factors*. Paper presented at American Educational Research Association (AERA), Seattle, Washington.

Baylor, A. L. & Kitsantas, A. (April, 2001). *Self regulation in instructional planning of pre-service teachers: An experimental study*. Paper presented at American Educational Research Association (AERA), Seattle, Washington.

Baylor, A. L. & Jafari, A. (February, 2000). *Intelligent agents for education: Possibilities and realities*. Paper presented at Association for Educational Communication and Technology (AECT), Long Beach, CA.

Baylor, A. L. (February, 2000). *A framework for MIMIC, an intelligent agent-based learning environment*. Paper presented at Association for Educational Communication and Technology (AECT), Long Beach, CA.

Jafari, A. & **Baylor, A. L.** (February, 2000). *Teaching and learning in 2002*. Paper presented at Association for Educational Communication and Technology (AECT), Long Beach, CA.

Baylor, A. L. (April, 1999). *Intelligent agents for education*. Paper presented at American Educational Research Association, Montreal, Canada.

Baylor, A. L. (February, 1999). *Factors influencing effective use of technology in the schools*. Paper presented at Association for Educational Communications and Technology (AECT), Houston, TX.

Baylor, A. L. (June, 1998). *Individual differences in web navigation*. Paper presented at National Educational Computer Conference (NECC), San Diego, CA.

Baylor, A. L. (April, 1998). *Novice instructional design of text*. Paper presented at American Educational Research Association (AERA), San Diego, CA. (ERIC document ED 438789.)

Baylor, A. L. (February, 1998). *Intelligent agents as cognitive tools in education*. Paper presented at Association for Educational Communications and Technology (AECT), St. Louis, Missouri.

McCormick, C. B. & **Baylor, A. L.** (April, 1995). *Thematic awareness and recall of information from text*. Paper presented at American Educational Research Association (AERA), San Francisco, CA.

REGIONAL, STATE, AND LOCAL PRESENTATIONS

Baylor, A. L. (October, 1997) *Technology for training: A primer*. Major speaker for American Society of Training and Development 50th Anniversary Conference, Point Loma, CA.

Baylor, A. L. (September, 1997). *Intelligent agents for education*. Student Association of Graduates in Educational Technology (SAGE), San Diego State University.

Baylor, A. L. (February, 1997). *Effects of designing instruction for text on learning*. Paper presented at South Carolina Educators for the Practical Use of Research (SCEPUR), Columbia, SC.

INVITED PRESENTATIONS

Invited by Cliff Nass to give symposium at Stanford University, Dept of Communication, April 2007.

Invited to give symposium at George Washington University, Computer Science Dept., March 2007.

Invited by Chris Dede to give symposium at Harvard University, Program of Technology, Innovation and Education, November 2006.

Invited panelist for symposium, "Overcoming Gender Stereotypes: Girls in Science, Engineering and Technology." **Baylor, A. L.** (2006, February). *Challenging Stereotypes toward*

Engineering with Pedagogical Agents. AAAS (American Association for the Advancement of Science) Annual Meeting. St. Louis, Missouri.

Baylor, A. L. (2005, April). *Challenging Stereotypes of Engineering with Pedagogical Agents*. NSF Annual Grantee Meeting, JAM-05, Washington DC.

Organized invited expert panel: **Baylor, A. L.**, Cole, R. Graesser, A. & Johnson, L. (July, 2005) *Pedagogical agent research and development: Next steps and future possibilities*. Proceedings of AI-ED (Artificial Intelligence in Education), Amsterdam.

Baylor, A. L. (April, 2005) *Pedagogical Agents as Scaffolds for Learning and Attitude Change*. Paper presented at AERA (American Educational Research Association) as part of symposium “Scaffolding Learning with Hypermedia: An Exploration of Theoretical, Empirical, and Design Issues.” Montreal, Canada.

Baylor, A. L. (2004, October). *What we know (and don't) about the design of Pedagogical Agents*. Training for Tomorrow 2004: Explore the Future of Intelligent, Adaptive, and Collaborative Training. NASA Johnson Space Center, Houston, TX.

Keynote Speaker. **Baylor, A. L.** “A Tale of Three Unexpected Teachers.” Graduate Student Awards Ceremony. April 2, 2004.

Invited panelist. **Baylor, A. L.** (2004, April). “Scaffolding Self-regulated Learning and Metacognition: Implications for the design of computer-based scaffolds.” American Educational Research Association, San Diego, CA.

Invited discussant: **Baylor, A. L.** (2004, April). Division-C panel on “Pedagogical Agent Design and Applications.” American Educational Research Association, San Diego, CA.

Baylor, A. L. (2003, April). *Systematically designing pedagogical agents: Effects of image, animation, and agent role on learner performance and motivation*. Advanced Learning Technologies and Learning Networks and Their Impact on Future Aerospace Workforce. NASA Langley Research Center, Hampton, VA.

Baylor, A. L. (2002, July). *A research agenda for pedagogical agents*. Tutoring Research Group: University of Memphis, Memphis, TN.

Invited panelist: **Baylor, A. L.**, Graesser, A., Moreno, R. & Johnson, W. L. (2001, August). “Agents, Believability and Embodiment in Advanced Learning Environments.” International Conference of Advanced Learning Technologies (ICALT), Madison, WI.

Baylor, A. L. (2001, March). *Cognitive foundations of agent-based learning environments*. Agent Institute, University of Maine, Augusta, ME.

Baylor, A. L. (2000, May). *Teaching and technology in the American university system*. University of Hanover, Department of Monetary Economics, Shierke, Germany.

Baylor, A. L. (1999, December). *How can we use intelligent agents for education?* University of Hanover, Knowledge Based Systems Institute, Hanover, Germany.

Baylor, A. L. (1998, November). Keynote speaker: *Disorientation on the web—Adventure or distraction?* Consortium of College and University Media Centers (CCUMC), Santa Cruz, CA.

MEDIA (Selected)

Frequently contacted by media for interviews in reference to the use of avatars for learning and virtual instructors.

“Virtual Tutors Guide Students but Are Not Quite Ready to Replace Professors,” by Jeffrey Young, *Chronicle of Higher Education*. December 2, 2005.

Feature story in Information Technology section of *Investor's Business Daily*. March 20, 2006.

Feature story on “Discoveries and Breakthroughs Inside Science (DBIS),” a syndicated television science news service aired by local stations all over the U.S. 2006.

“Online Learning’s Frontier,” *ACM TechNews*. Vol. 7, Issue 868, November 18, 2005.

“Researcher Gives Computers a ‘Human’ Face.” *LinuxElectrons*, November 15, 2005.

“Online Learning's Frontier: Researcher Gives Computers A 'Human' Face.” *ScienceDaily*. November 15, 2005.

Cover page article describing establishment of RITL and research agenda, Florida State University *Torch Magazine*, Winter 2004-2005.

Feature article in Florida State University *Torch Magazine*, Fall 2003.

Interviewed on 90 minute national satellite broadcast “Preparing Teachers to Use Technology Effectively in Urban and Rural Settings.” September, 2003.

INTERNATIONAL TUTORIALS

Present half-day tutorial at ED-MEDIA (World Conference on Educational Multimedia, Hypermedia and Telecommunications). *Effective design of pedagogical agents*. Honolulu, HI, June, 2003.

UNIVERSITY SERVICE

University-Level Service

- Member, TEAC (Teacher Education Advisory Council). Represent Psychological Foundations. 2003-2006.
- Invited member of panel discussion “The Ins and Outs of the Hiring Process.” Presented to Preparing Future Faculty meeting, February, 2001.
- Member, FSU University Computer Information and Services Committee (CISC). 1999-2006.

College-Level Service

- Delivered colloquium on “New ways to use technology for teaching and learning” to the Cawthon Hall Learning Community (150 students), Florida State University. Fall, 2003.
- Member, College of Medicine—Learning Systems Institute Committee to initiate relationship between programs. Represent Instructional Systems Program. 2002-present.
- Member, FSU College of Education Technology Committee. 2002-present.
- Coordinated 3-day Research Visit for NCREL to the FSU College of Education, May 2002.
- Member, FSU College of Education Standards Committee. 1999-2002.
- Member, SDSU College of Education Curriculum Committee. 1998.
- Developed and taught technology workshop for members of the Model Education Center (MEC) SDSU faculty. June, 1998.

- Member, SDSU College of Education Research Committee. 1997-1998.
- Member, SDSU COE Ad Hoc Faculty Development Committee. 1997-1998.

Departmental Service

- Chair, FSU Instructional Systems Program Doctoral Curriculum Revision Committee. 2002-2006.
- Member, FSU Department of Educational Psychology & Learning Systems (EPLS) Ad Hoc Research Course Committee, 2004.
- Member, FSU Department of Educational Psychology & Learning Systems (EPLS) SRAD Allocation Committee, 2003-2005.
- Member, FSU Department of Educational Psychology & Learning Systems (EPLS) Search Committee for Assistant Professor Learning and Cognition Position. 2002-2003.
- Member, FSU Department of Educational Psychology & Learning Systems (EPLS) Search Committee for Associate/Full Instructional Systems Position. 2002-2003.
- Member, FSU Department of Educational Psychology & Learning Systems (EPLS) -- Instructional Systems Admissions committee. 2001, 2003.
- Chair, FSU Department of Educational Psychology & Learning Systems (EPLS) Search Committee for Assistant Professor Instructional Systems Position. 2002.
- Chair, FSU Department of Educational Psychology & Learning Systems (EPLS) Search Committee for Assistant Professor Instructional Systems Position. 2001.
- Member, FSU Department of Educational Psychology & Learning Systems (EPLS) Search Committee for Associate/Full Instructional Systems Position. 2001.
- Member, FSU Department of Educational Psychology & Learning Systems (EPLS) Evaluation Committee. 2000-2001.
- Member, FSU Department of Educational Psychology & Learning Systems (EPLS) Search Committee for Instructional Systems Position. 2000.
- Coordinator of SDSU College of Education, Department of Educational Technology Master's Graduation, May, 1998.
- Coordinator of SDSU College of Education, Department of Educational Technology Master's Graduation, May, 1999.

NATIONAL & INTERNATIONAL SERVICE

Journal, Editor, and Textbook Review

- Editor of special issue on "Pedagogical Agents" for *Educational Technology*, 2005-2007.
- Consulting editor for *Educational Technology Research and Development: Development Section*. 2001-present
- Consulting editor for *Educational Technology Research and Development: Research Section*. 2002-present
- Reviewer for *International Journal of Artificial Intelligence in Education*, 2005-present.
- Reviewer for *International Journal of Human Computer Studies*, 2007-present.
- Ad hoc reviewer for *Applied Social Psychology*. 2003.
- Editor of special issue of *TechTrends* on "Technology and Training", with Allison Rossett (2000), 44(5).

- Reviewer for *TechTrends*. 2000.
- Reviewer for text proposal "Students, Teachers & Computers: A pedagogical approach." McGraw-Hill Publishing. 1999.
- Reviewer for Educational Psychology & Learning Systems (EPLS) textbooks. McGraw-Hill Publishing. 1998, 1999.

Professional Society Service

- Reviewer for American Educational Research Association Conferences 1998-present.
- Appointed to Nominating Committee for AECT President. 2003-2004.
- Reviewer for the Cognitive Science Society Annual Conferences, 1998-2000.
- Reviewer for Young Researcher Award for Association for Educational Communications and Technology (AECT): Research and Theory Division. 1999-2002.

Grant Agency Service

- Nominated by NSF to participate in Workshop on CyberLearning: Cognitive Implications of Virtual or Web-enabled Environments. Organized by the Computing Research Association and the International Society of the Learning Sciences. Held in Washington, DC, November 2004.
 - Outcome of meetings was Technical Report: "Cyberinfrastructure for Education and Learning for the Future: A Vision and Research Agenda," Computing Research Association.
- Appointed to Organizing Committee of NSF-funded Workshop on "Perceptive Animated Interfaces & Virtual Humans." Held in La Jolla, CA, April 2004.
- Member of over 10 NSF grant review panels (Computer Information Science & Engineering; Education & Human Resources). 2002, 2003, 2004, 2005, 2006.
- Grant Reviewer for the Austrian Science Fund.
- Grant Reviewer for the Social Sciences Research Council of Canada.
- Reviewer for the Indiana 21st Century Research and Technology Fund, 2004.
- Invited to participate as part of expert panel discussion on research issues at the interface of information technology and learning. Sponsored by Experimental and Integrative Activities Division of the Computer and Information Science and Engineering Directorate of the National Science Foundation (NSF). Unable to attend due to travel conflict – July, 2003.
- Lead grant reviewer for expert panel, Office of Educational Research and Improvement (OERI): Small Business Innovation Research (SBIR). 2002.

Program / Organizing Committees

- Program Committee for Persuasive 2008.
- Organizing Committee for Tapia (Celebration of Diversity in Computing) 2007.
- Program Committee for "Assessment of Group and Individual Learning through Intelligent Visualization (AGILeViz)" at Artificial Intelligence in Education International Conference, Los Angeles, CA, 2007.

- Program Committee for “Modeling and Scaffolding Affective Experiences to Impact Learning” at Artificial Intelligence in Education International Conference, Los Angeles, CA, 2007.
- Program Committee for “Virtual Humans” Conference, Paris, 2007.
- Program Committee for “Agent-Based Systems for Human Learning” Workshop for the International Joint Conference on Autonomous Agents & Multi-Agent Systems, Amsterdam, July 2005.
- Program Committee for “AIED Workshop on Educational Games as Intelligent Learning Environments” Workshop for the Artificial Intelligence in Educational International Conference, Amsterdam, July 2005.

COMMUNITY SERVICE

- Technological consultant for technology planning and teacher training. Rosa Parks Elementary School. 1997-1998.
- Educational expert for Technology Connections Symposium. Santee School District. October, 1997.
- Member, Board of Advisors for Computer-Using Educators (CUE). San Diego. 1998-1999.
- Member, Grants Review Committee for Computer-Using Educators (CUE). San Diego. 1998-1999.

OTHER CONSULTING

- Evaluation consultant for Baylor University College of Medicine for a pedagogical agent learning environment, 2003-2005.