

# Jonathan Michael Spector – VITA

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## PERSONAL DATA

Citizenship: USA  
Place of Birth: Pensacola, Escambia County, Florida, USA

## EDUCATION

1978 Ph.D., Philosophy (Epistemology/Logic)  
The University of Texas @ Austin, TX, USA

1967 B.Sc., International Affairs (Psychology/Philosophy)  
United States Air Force Academy, CO, USA

## PROFESSIONAL EXPERIENCE

- 2009 - Professor and Research Scientist, Learning and Performance Support Laboratory, University of Georgia, Athens, Georgia
- 2004 - 2008 Associate Director, Learning Systems Institute (LSI), & Professor, Educational Psychology and Learning Systems, Florida State University, Tallahassee, Florida  
Responsible for research in learning and instruction at LSI and graduate teaching in Instructional Systems
- 2000 - 2004 Professor and Chair, Instructional Design, Development & Evaluation (IDD&E), Syracuse University, Syracuse, New York  
Responsible for leading the educational technology graduate program at Syracuse University
- 1997 - 2000 Professor and Director, Educational Information Science & Technology Research Program, University of Bergen, Norway; Professor II at Agder University College, Norway and at Göteborg University, Sweden; Adjunct member of the graduate faculty at the University of Minnesota, USA  
Responsible for facilitating and supporting research and development in advanced learning environments to improve learning and instruction at the University and with collaborating institutions
- 1991-1997 Senior Scientist (GM-13, GS-14, GS-15)  
Instructional Systems Research Branch USAF Armstrong Research Laboratory  
Technical advisor and senior research team leader for research and development programs in training and educational technology with an emphasis on intelligent performance support for instructional design and development.
- 1984 - 1991 Assistant/Associate Professor  
Department of Mathematics, Computer & Information Sciences  
Jacksonville State University, AL  
Taught undergraduate and graduate courses in computer science, artificial intelligence, and software engineering. Member of the graduate faculty; faculty handbook committee
- 1983-1984 Senior Systems Programmer  
Tower Telescope, National Solar Observatory, NM  
Created and maintained software systems for the tower telescope; designed software to enhance performance and for new equipment
- 1981 - 1983 Systems Analyst  
Cubic Corp., ACMI Site, Holloman AFB, NM

- Maintained software systems related to the operation of the Aircrew Combat Maneuvering Instrumentation (ACMI) system -- a real-time, multi-tasking system involving six mini-computers and approximately 400 programs. Responsibilities included installation, test, maintenance, and modifications
- 1978 - 1981  
Instructor  
Philosophy Department  
El Paso Community College, TX  
Taught Introduction to Philosophy, Formal Logic, Informal Logic, and Ethics
- 1972 - 1978  
Lecturer  
Department of Philosophy  
The University of Texas @ Austin, TX  
Taught Formal Logic and Ethics
- 1971-1972  
Volunteer Teacher, Sherut La'am  
Kiryat Shemona, Israel (on leave of absence from IBM)
- 1970 - 1972  
Junior Analyst  
IBM SDD Laboratory, Boulder, CO  
Tested software and wrote User's Guide for the Data Processing Utilization System
- 1967 - 1970  
Intelligence Officer  
13th Air Force, Clark AB, Philippine Islands  
Watch Officer responsible for analyzing coded message traffic

## SPECIAL SCHOOLING

- 1999  
Java Tools and Technologies I (1 week)  
Massachusetts Institute of Technology, Cambridge, MA
- 1991 - 1993  
Systems Acquisition & Systems Engineering  
Advanced Professional Development Levels I, II, & III
- 1989  
Digital Video (DVI) Workshop (1 week)  
Carnegie-Mellon University, PA
- 1987  
Advanced Ada Workshop (1 week)  
Keesler AFB, MS
- 1985  
Ada Programming Workshop (1 month)  
Mississippi State University, MS
- 1984 - 1986  
Graduate Work in Computer Science (18 credits - 6 courses)  
The University of Alabama in Birmingham, AL
- 1981 & 1983  
Perkin-Elmer OS-32, Assembly Language I & II, and I/O Systems (4 weeks)  
Orange Grove, CA
- 1970  
OS 360, Assembly Language, COBOL, FORTRAN, RPG II, PL/I (3 months)  
IBM Programming School, Kansas City, MO
- 1967 - 1968  
Air Intelligence Officer Training (9 months)  
Lowry AFB, CO

## PROFESSIONAL SERVICE & ACTIVITIES

- 2008 -  
2008 -  
2008  
Reviewer for the Asia Pacific Education Review  
Reviewer for the Journal of Computing in Higher Education  
Research Community Advisory Committee, International Conference on Computers in Education (ICCE)
- 2007  
Elected President-elect designee, Association for Educational Communications and Technology (AECT; election conducted in 2008; term activates in November)
- 2007 -  
Associate Director, Interdisciplinary Center for Leadership, Technology Integration and Critical Literacies (I-CELTIC), Florida State University
- 2007 -  
2007- 2008  
Editorial Board, International Journal of Management and Decision Making  
Affiliate Faculty, Socio-cultural and International Development Education Studies (SIDES), Florida State University
- 2007 -  
2007- 2008  
2007  
2006- 2008  
Editorial Board, International Journal of Cyber Society and Education  
Reviewer, Scientific Journals International  
Grants Evaluator, Norwegian Research Council  
Scientific Committee, International Conference of the Learning Sciences

2006 - Scientific Program Committee, TENCompetence (European project)

2005 - Organizing Committee, Cognition and Exploratory Learning in the Digital Age (CELDA)

2005 - 2007 Member, Advisory Board, School Library Media Specialists for the 21<sup>st</sup> Century: Leaders Educated to Make a Difference (Project LEAD)

2005 Guest co-editor of special issue of *Evaluation and Program Planning* on organizational learning

2004 - Member, IEEE Learning Technology Task Force Executive Committee

2004 - 2005 Reviewer for the Research Council of Canada

2004 - 2005 Reviewer for the Italian National Research Council

2004 Co-chair, New Learning 2004, 10-12 May 2004, Skiathos, Greece

2004 - Scientific Committee, International Association for Development of the Information Society (IADIS); reviewer for many IADIS conferences

2004 Conference on E-Learning in the Digital Age Program Committee and keynote speaker

2004 - 2006 Member, International Scientific Advisory Committee, Internet Society

2004 - Editorial Advisory Board, *Journal of Educational Sciences and Practice (ebuline)*

2004 - Contributing Editor, *Educational Technology*

2003 - Editor, *Educational Technology Research & Development-Development*

2003 - 2004 Associate Director, Center for Digital Literacy, Syracuse University

2003 - Editorial Advisory Board, *Media and Technology for Human Resource Development*

2003 Co-chair, IEEE International Conference on Advanced Learning Technologies, Athens, Greece, July 9-11, 2003

2003 Invited reviewer, Special issue of *Educational Psychologist* on Cognitive Load Theory, Volume 38, Number 1

2003 Guest co-editor, Special issue of *Evaluation and Program Planning* on Evaluating Educational Technology, EPP, Volume 26, Number 2

2003 External program reviewer, Instructional Psychology & Technology, BYU

2003 - Editorial Review Board, *International Journal of Web Based Communities*

2002 - Advisory Board, *Education, Technology and Society*

2002 - Editorial Board, *Technology, Instruction, Cognition and Learning*

2002 - 2004 President-elect/President/Past President of the Design & Development Division of the Association for Educational and Communications Technology (AECT)

2002 - Editorial Review Board, *Research in Management Education and Development*

2002 ETS consultant – competencies for online teaching

2001 - Editorial Board, *Distance Education*

2001 - Advisory Board, New York State Preparing Tomorrow's Teachers to Use Technology (PT3) Catalyst Grant Program

2001 NSF Evaluation panel member – Research on Learning and Education

2000 - 2004 Governing Council, School of Information Studies, Syracuse University

2000 - Editorial Board, *Evaluation and Program Planning*; co-editor of a special issue on evaluating educational technology in 2002

2000 - Reviewer for the International System Dynamics Conference

2000 Guest Editor, 3 Special Issues of *Simulation & Gaming* on System Dynamics Based Learning Environments

1997 - 2000 Norwegian representative to the European Knowledge Media Association

1997 - 2000 Book Review Editor, *Research Dialogue*, European Association for Learning and Instruction (EARLI)

1996 - Member, Treasurer, Executive Vice President, Fellow, International Board for Standards in Training, Performance and Instruction (*ibstpi*)

1996 - Reviewer, *Educational Computing Research*

1995 - 1999 Co-founder, *International Consortium for Courseware Engineering*, served Secretary from 1995 - 1997; elected President 1997

1994 - Editorial Board, *Computers in Human Behavior*; guest editor of special issues in 1996 and 1997

1994 - Reviewer/Board Member, *Educational Technology Research & Development*

1994 - 1999 Lecturer, Institute for Courseware Engineering (Univ. of Minnesota); adjunct member of the graduate faculty at the University of Minnesota

1994 - 1999 Mentor, Air Force Palace Knight Program

1993 - 1999 Mentor, Air Force Graduate Fellowship Program

1993 - 1999 National Research Council Advisor

1993 - Editorial Board, Book Review Editor, Associate Editor *Instructional Science*  
1993 - 1996 Association for the Development of CBI Systems (ADCIS)  
1993 - Reviewer, *Educational Research Quarterly*  
1993 - 1997 Advisor, [D]ARPA Defense Technology Transition  
1992 - 1997 Sponsor, Air Force Windows on Science Program  
1992 - 1999 Organizer & Charter Board Member, *Training Research Journal*  
1992 - 1995 Advisor, USAF Synthetic Environments Group  
1987 - 1991 Vice President, Direct Filers (Electronic Filing to IRS), Anniston, AL  
1990 - Present Reviewer:  
\* *American Association for Educational Research (AERA)*  
\* *Association for Educational and Communications Technology (AECT)*  
\* *Computers in Human Behavior*  
\* *ED-MEDIA*

1990 - 1995 Reviewer:  
\* *Artificial Neural Networks in Engineering*  
\* *Journal of Computer-Based Instruction*  
\* *Military Psychology*  
\* *IITSEC Training Development & Delivery Review Committee*

1986 - 1991 Member, Graduate Faculty  
Jacksonville State University

1985 - 1990 Software Engineering and Computer Consultant for:  
Research Dynamics (Database Management System), San Antonio, TX  
Air Force Human Resources Laboratory (ISS Analysis), Brooks AFB, TX  
City of Jacksonville (Computer Requirements Analysis), Jacksonville, AL  
EGA, Inc. (Inventory Control System), Ft. McClellan, AL  
J. B. LaGarde Cement, Inc. (Integrated Software), Anniston, AL

1987 - 1988 President, Cheaha Chapter  
Data Processing Management Association (DPMA)

1984 - 1988 Workshop Leader:  
Introduction to Ada (2 weeks), Ft. Rucker, AL  
PROLOG (1 week), Kenneth E. Johnson Research Center, Huntsville, AL  
LOGO & SuperPilot, JSU In-Service Training Center, Jacksonville, AL

1987 - 1988 Board of Directors, Alabama Council for Computer Education (ACCE)  
1987 Chair, Faculty Handbook Committee, Jacksonville State University

## PROFESSIONAL AFFILIATIONS

Association for the Advancement of Computing in Education (AACE)  
Association for Educational and Communications Technology (AECT)  
American Educational Research Association (AERA)  
American Philosophical Association-Lifetime Membership (APA)  
European Association for Research in Learning and Instruction (EARLI)  
Institute of Electrical and Electronics Engineers-Computer Society (IEEE/CS)  
International Association for Development of the Information Society (IADIS)  
International Board for Standards in Training, Performance and Improvement (ibstpi)  
International System Dynamics Society (SDS)

## CONTRACTS AND GRANTS

FSU International Center for Educational Leadership, Technology Integration and Critical Literacies (ICELTIC) (2007-2012; \$640,000; Co-PI)  
Air Force Research Laboratory – Feasibility of Modeling the Impact on Individual and Organizational Performance of Technical Training in IMPRINT for 21<sup>st</sup> Century Air Force Needs (2007-2008; \$321,000; PI).  
Texas Instruments – Initial Use of the TI-Nspire with Florida Middle School Students (2007; \$10,000; PI).  
Department of Education - Comprehensive School Reform in Rural K-8 Schools in the Southeast: Integrative Technologies for Quality Initiatives (2006-2008; \$2,250,000; PI).

JXT/US Navy – Conventional Training versus Game-Based Training (2006/2007; \$30,000; key investigator at FSU).

JXT/USAF – Improved Performance Research Integration Tools (IMPRINT) Training Algorithm Enhancements for Maintainers (2006-2008; \$270,000; key investigator at FSU).

Florida State University Cornerstone Social Science Program Enhancement Grant – International Center for Learning, Education and Performance Systems (ICLEPS) (2006/2006; \$100,000; PI).

Florida State University Council on Research and Creativity – Interdisciplinary Center for Technology Integration and Critical Literacies (I-CELTIC) (2006; \$25,000; Co-PI)

Norwegian Research Council: Improving Security by Improving Data Quality & Use (2006; 75,000 NOK; co-investigator).

Department of Homeland Security: Center for the Study of High Consequence Event Preparedness and Response (PACER) (2006-2011; PI for the Higher Education Effort with John Hopkins University as the lead institution; \$15M for first three years).

Department of Homeland Security: Port Security Training Research and Development (2005-2007; Co-PI, \$6.18M).

USAID-Indonesia Improved Quality of Decentralized Basic Education: Improved Quality of Teaching and Learning (2005-2010; Co-PI)

Project LEAD: School Library Media Specialists for the 21<sup>st</sup> Century: Leaders Educated to Make a Difference (2005; Advisory Board)

NSF 03-542 Enhanced Evaluation of Learning in Complex Domains (2003/2004; Principal Investigator; \$350,000)

NSF 03-530 Students Using NSDL (SUN): Science Information Literacy and the NSDL (2003/2004; Advisory Board)

Mellon Foundation Grant: Cost and Learning Effects of Alternative e-Collaboration Methods in Online Settings (\$112K, 2001-2002, Principal Investigator)

Syracuse University Vision Grant: Innovative Interdisciplinary Collaboration Between the School of Education and the School of Information Studies (\$24K, 2001, Co-PI)

European IST 5<sup>th</sup> Framework ADAPT-IT Project: Training Design Methods & Tools, (\$10M, 1999-2002, Project Partner)

Norwegian Digitale Læremidler Working Group: Web-based Learning, (\$500K, 1998-2000, Project Coordinator)

European Commission grants with EIST: EuroLiterature, OrthODL, Young Mothers (Project oversight and scientific advice)

Meltzer Research Foundation at UiB: OrthODL-In-Use (1998), OrthoLine (1999), Travel Grant (1998)

Norwegian Research Foundation grants with EIST: DOCTA (1998)

Air Force Office of Scientific Research grant for research workshop at the University of Bergen on Environmental Education (\$5K, 1998)

Applying System Dynamics to Modeling Instructional Design Projects, Agder College/Univ. of Minn./Armstrong Lab, \$12K, Grimstad, Norway (Jun 1994)

Automating Instructional Planning & Production, NATO Advanced Study Institute, \$87K, Grimstad, Norway (Jul 1993)

Automating Instructional Design, Development, & Delivery, NATO Advanced Research Workshop, \$25K, Barcelona, SP (Mar 1992)

University Resident Research Program Grant (AFOSR), Air Force Human Resources Laboratory, TX \$180K (1989-1991)

Air Force Research Initiation Program Grant (AFOSR), Air Force Human Resources Laboratory, TX, \$22K (1989)

Air Force Summer Research Fellowship (AFOSR), Air Force Human Resources Laboratory, TX, \$15K (1988)

JSU Faculty Research Grant (Database Repository), Jacksonville State University, AL, \$5K (1987-1988)

## PROFESSIONAL HONORS AND AWARDS

2008	AECT President-elect
2006	AECT Annual Achievement Award
2006	Fellow, International Board of Standards for Training, Performance and Instruction
2005	Fellow, Learning Development Institute

- 2005 AECT Outstanding Book Award for *Instructor Competencies: Standards for Face-to-face, Online and Blended Settings*
- 2002 ETR&D-Research Reviewer Award
- 1995 -
- 1996 Fulbright Research Fellow, University of Bergen, Norway
- 1996 Air Force Association Outstanding Civilian Senior Manager of the Year
- 1996 Federal Laboratory Consortium Award for Excellence in Technology Transfer
- 1993 Air Force Association Scientist of the Year
- 1993 NATO Advanced Study Institute Organizing Committee  
Automating Instructional Planning & Production
- 1992 NATO Advanced Research Workshop Organizing Committee  
Automating Instructional Design, Development, & Delivery
- 1992 Armstrong Laboratory Civilian of the Quarter  
Brooks AFB, TX
- 1991 Nomination for Best Paper, November 1991, Orlando, FL  
Technology and Innovation in Training and Education Conference
- 1991 Citation for Best Paper, April 1991, Chicago, IL  
American Education Research Association Annual Meeting
- 1991 Armstrong Laboratory Civilian of the Quarter  
Brooks AFB, TX
- 1990 Invited Participant, NATO Advanced Study Institute  
Instructional Computing Systems, Calgary, Canada
- 1989 Distinguished Research Award  
Jacksonville State University, AL
- 1972-
- 1978 Teaching Assistantship/Fellowship  
The University of Texas @ Austin, TX
- 1970 IBM Honor Graduate (First in Class)  
IBM Programming School, Kansas City, MO
- 1967 Distinguished Graduate  
United States Air Force Academy, CO
- 1967 Brockway Philosophy Award  
United States Air Force Academy, CO
- 1967 Civil Air Patrol Award  
United States Air Force Academy, CO

## PROFESSIONAL PRESENTATIONS & INVITED SEMINARS

- Spector, J. M. (1987, January). *An introduction to expert systems*. Paper presented at the Annual Meeting of the Alabama Council for Computer Education, Mobile, AL.
- Spector, J. M. (1987, November). *Ada as a core programming language*. Tutorial presented at the First Annual Meeting of the Southeastern Small College Computing Consortium, Chattanooga, TN.
- Spector, J. M. (1988, January). *Using LOGO to introduce LISP*. Paper presented at the Annual Meeting of the Alabama Council for Computer Education, Birmingham, AL.
- Spector, J. M. (1988, January). *Using Turbo Pascal*. Paper presented at the Annual Meeting of the Alabama Council for Computer Education, Birmingham, AL.
- Spector, J. M. (1988, May). *History and logic of neural networks*. Paper presented at the Jacksonville State University Workshop on Artificial Neural Networks, Jacksonville, AL.
- Spector, J. M. (1988, July). *Using PROLOG to design expert systems*. Seminar presented at the Kenneth E. Johnson Research Center, Huntsville, AL.
- Spector, J. M. (1988, July). *Automated tools in instructional design*. Presentation at the Navy Personnel Research & Development Center, San Diego, Ca.
- Spector, J. M. (1988, November). *Ada as a first language*. Paper presented at the Second Annual Meeting of the Southeastern Small College Computing Consortium, Chattanooga, TN.
- Spector, J. M. (1989, January). *Problem solving in LOGO*. Paper presented at the Annual Meeting of Alabama Council for Computer Education, Tuscaloosa, AL.
- Spector, J. M. (1989, January). *Curriculum issues in computer science*. Session chaired at the Annual Meeting of the Alabama Council for Computer Education, Tuscaloosa, AL.

- Spector, J. M. (1989, November). *Expert systems and instructional design*. Paper presented at the Third Annual Meeting of the Southeastern Small College Computing Consortium, Birmingham, AL.
- Spector, J. M. (1990, February). *The logical limitations of neurocomputing*. Paper presented at the NASA/CCDS Auburn University Conference on Neural Networks, Auburn, AL.
- Spector, J. M. (1990, March). *Designing an interdisciplinary AI course*. Paper presented at the First Annual Meeting of the South Central Small College Computing Consortium, Austin, TX.
- Spector, J. M., Muraida, D. J., & Dallman, B. E. (1990, April). *Establishing instructional strategies for advanced interactive technologies*. Paper presented at the Twelfth Psychology in the DoD Symposium, Air Force Academy, CO.
- Spector, J. M., & Muraida, D. J. (1990, November). *Modeling the process of automated instructional design*. Paper presented at the Military Testing Association Conference, Orange Beach, AL.
- Spector, J. M., Kudla, N. R., & Mitchell, W. M. (1990, November). *Managing computer-based education and training*. Paper presented at the American Society of Mechanical Engineers Annual Meeting, Dallas, TX.
- Spector, J. M., & Muraida, D. J. (1991, February). *Automating the design and delivery of computer-based instruction*. Paper presented at the Society of Applied Learning Technology Annual Meeting, Orlando, FL.
- Spector, J. M. (1991, March). *Training technology in the military*. Special interest group session chaired at the Ninth CBT Conference & Exposition, San Antonio, TX.
- Spector, J. M. (1991, April). *Methods for transferring results of innovative research in computer-based instruction to academia and industry*. Paper presented at the Second Annual Meeting of the South Central Small College Computing Consortium, Austin, TX.
- Spector, J. M., & Muraida, D. J. (1991, April). *Analyzing user interaction with instructional design software*. Paper presented at the American Educational Research Association Annual Meeting, Chicago, IL.
- Spector, J. M. (1991, August). *Automating instructional design strategies: Possibilities & limitations for military training*. Paper presented at the 9th International Conference on the Learning Sciences, Northwestern University, IL.
- Spector, J. M. (1991, October). *Simulations in training*. Session organized and chaired at the Military Testing Association Meeting, San Antonio, TX.
- Spector, J. M. (1991, November). *Forecasting and parameter estimation*. Session chaired at the Artificial Neural Networks in Engineering Conference, St. Louis, MO.
- Spector, J. M., Muraida, D. J., & Connolly, C. A. (1991, November). *Using auditory presentations in CBT*. Paper presented at the Technology and Innovations in Training and Education Conference, Orlando, FL.
- Spector, J. M., & Muraida, D. J. (1991, November). *An advanced instructional design advisor prototype*. Paper presented at the Technology and Innovations in Training and Education Conference, Orlando, FL.
- Spector, J. M., & Muraida, D. J. (1991, March). *When CBT speaks: Guidelines for incorporating audio*. Paper presented at the Tenth CBT Conference & Exposition, Orlando, FL.
- Spector, J. M. (1991, March). *Training technology in the military*. Special interest group session chaired at the Tenth CBT Conference & Exposition, Orlando, FL.
- Spector, J. M. (1992, March). *Instructional design*. Session chaired at the Ninth international Conference on Technology and Education, Paris, FRANCE.
- Spector, J. M., & Muraida, D. J. (1992, March). *The implications of technology for instructional design*. Paper presented at the Ninth International Conference on Technology and Education, Paris, FRANCE.
- Spector, J. M. (1992, March). *Integrating instructional science, learning theory, and technology*. Paper presented at the NATO Advanced Research Workshop on Automating Instructional Design, Development and Delivery, Barcelona, SPAIN.
- Spector, J. M., Gagné, R. M., Muraida, D. J., & Dimitroff, W. A. (1992, April). *Intelligent frameworks for instructional design*. Paper presented at the American Educational Research Association Annual Meeting, San Francisco, CA.
- Spector, J. M., & Gros, B. (1992, July). *LOGO and instructional design*. Seminar at the University of Barcelona, SPAIN.
- Spector, J. M. (1992, August). *GAIDA and XAIDA: Demonstrations of automated instructional design guidance*. Presentation at the Utah State University Summer Instructional Technology Institute, Logan, UT.
- Spector, J. M., & Muraida, D. J. (1992, October). *Intelligent scaffolding for designing instruction*. Paper presented at the Military Testing Association Conference, San Diego, CA.
- Spector, J. M. (1992, October). *Distance learning: Motivation to learn*. Closing presentation for the Distance Learning Symposium at the Military Testing Association Conference, San Diego, CA.
- Spector, J. M. (1992, November). *Intelligent frameworks for instructional design*. Paper presented at the 14th Interservice/Industry Training Systems Conference, San Antonio, TX.

- Spector, J. M., & Muraida, D. J. (1992, November). *An intelligent framework for the creation of effective computer-based instruction*. Paper presented at the Association for the Development of Computer-based Instructional Systems Conference, Norfolk, VA.
- Muraida, D. J., & Spector, J. M. (1992, November). *Toward effective use of speech in CBI*. Paper presented at the Association for the Development of Computer-based Instructional Systems Conference, Norfolk, VA.
- Spector, J. M. (1992, December). *Adaptive instructional design*. Presented at the Technology Advisory Group Conference, Phoenix, AZ.
- Spector, J. M., & Jones, T. (1993, April). *An automated approach to instructional design guidance*. Paper presented at the American Educational Research Association Annual Meeting, Atlanta, GA.
- Muraida, D. J., & Spector, J. M. (1993, April). *Automated approaches to instructional design*. Paper presented at the American Educational Research Association Annual Meeting, Atlanta, GA.
- Spector, J. M. (1993, July). *Guided approach to instructional design advising (GAIDA)*. Paper presented at the NATO Advanced Study Institute, Grimstad, Norway.
- Spector, J. M. (1993, July). *Towards an integration of instructional science and learning theory*. Paper presented at the NATO Advanced Study Institute, Grimstad, Norway.
- Spector, J. M. (1993, November). *Models for effective use of distance learning technologies*. Paper presented at the International Society for Technology in Education TEL-ED 93 conference, Dallas, TX.
- Spector, J. M. (1993, December). *Revolutions in automation and standardization of ISD: Guided approach to instructional design advising*. Paper presented at the 15th Interservice/Industry Training Systems and Education Conference, Orlando, FL.
- Spector, J. M., & Whitehead, L. K. (1994, February). *A guided approach to instructional design advising*. Paper presented at the annual meeting of the Association for the Development of Computer-based Instructional Systems, Nashville, TN.
- Spector, J. M. (1994, April). *Automating instructional systems*. Panel discussant at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Tennyson, R. D., & Spector, J. M. (1994, April). *Goals for automating instructional systems*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Spector, J. M. (1994, July). *Integrating principles and practices of instructional design*. Graduate seminar presented at the Institute of Courseware Engineering, Minneapolis, MN.
- Spector, J. M. (1995, October). *Remarks on instructional design: Theory and research*. Graduate seminar presented for the Department of Computer and Information Science at the University of Linköping, Sweden.
- Spector, J. M. (1995, October). *Instructional design: Theory and practice*. Graduate seminar presented for the Institute for Pedagogy at Göteborg University, Sweden.
- Spector, J. M. (1995, October). *Performance support for instructional systems development: Problems and progress*. Seminar presented at the Department of Information Science, University of Bergen, Norway.
- Spector, J. M. (1996, January). *Advances in instructional systems development: Automation and assistance*. Seminar presented at the Department of Information Technology, University of Twente, Norway.
- Spector, J. M. (1996, June). *Creating engaging courseware using system dynamics*. Paper presented at the Annual ED-MEDIA Meeting in Boston, MA, 20 June 1996.
- Spector, J. M. (1996, June). *The ISD project management tutor*. Paper presented at the Annual ED-MEDIA meeting in Boston, MA, 20 June 1996.
- Spector, J. M. (1996, June). *Demonstration of the Advanced Instructional Design Advisor*. Paper presented at the Annual ED-MEDIA Meeting in Boston, MA, 20 June 1996.
- Spector, J. M. (1996, June). *XAIDA: Where the expertise is*. Paper presented at the Annual ED-MEDIA meeting in Boston, MA, 21 June 1996.
- Spector, J. M. (1996, July). *The complexity and dynamics of ISD*. Seminar presented at the Institute for Advanced Learning Technology at the University of Minnesota, Minneapolis, MN, 22 July 1996.
- Spector, J. M., & Nielsen, M. (1996, July). *Instructional design project management*. Seminar presented at the Institute for Advanced Learning Technology at the University of Minnesota, Minneapolis, MN, 24 July 1996.
- Spector, J. M. (1996, August). *Integrating instructional design with learning theory and instructional technology*. Seminar presented at the Institute for Advanced Learning Technology at the University of Minnesota, Minneapolis, MN, 1 August 1996.
- Spector, J. M. (1996, August). *International differences in instructional design perspectives*. Presentation at the International Congress of Psychology, Montreal, Canada, 20 August 1996.
- Spector, J. M. (1997, March). *Intelligence Performance Support for Courseware Engineering*. Presentation at the Annual Meeting of the American Educational Research Association, Chicago, IL, 25 March 1997.

- Spector, J. M. (1997, March). *Modeling the Dynamics of Large Scale Instructional Developments for Project Management*. Presentation at the Annual Meeting of the American Educational Research Association, Chicago, IL, 27 March, 1997.
- Spector, J. M., & Davidsen, P. I. (1997, August). *Cognitive complexity in system dynamics based learning environments*. Presented at the International System Dynamics Conference, Istanbul, Turkey, 21 August 1997.
- Spector, J. M. (1997, September). *Managing cognitive complexity in simulation-based learning environments*. Presented at the Association for Learning Technology Conference, Telford, England, 16 September 1997.
- Spector, J. M., & Davidsen, P. I. (1997, November). *Constructing interactive learning environments using system dynamics methods and tools*. Presented at the Norsk informatikkonferanse (NIK), Voss, Norway, 25 November 1997.
- Spector, J. M. (1998, February). *System dynamics based learning environment*. Presentation at the International Masters Workshop at the Association for Educational Communications and Technology Annual Meeting, St. Louis, Missouri, 17 February 1998.
- Spector, J. M. (1998, February). Discussant: *Distance education: Analysis of far/near-site interaction patterns*. Presented at the Association for Educational Communications and Technology Annual Meeting, St. Louis, Missouri, 19 February 1998.
- Spector, J. M., Gonzalez, J. J., & Breuer K. (1998, April). *Tools and principles for the design of learning environments for complex domains*. Presented at the American Educational Research Association Annual Meeting, 13 April 1998, San Diego, California.
- Spector, J. M. (1998, April). *Synthesizing instructional theories and implications for instructional technology*. Panel presentation at the American Educational Research Association Annual Meeting, 14 April 1998, San Diego, California.
- Spector, J. M. (1998, April). *Multimedia design and evaluation guidelines: A learning perspective*. Invited talk and expert reviewer for the Swedish Council for the Renewal of Undergraduate Education's Workshop and Project Review, 19 – 29 April 1997, Umeå, Sweden.
- Spector, J. M. (1998, June). *Cognitive complexity in decision making and policy formulation: A system dynamics perspective*. Presented at the International Conference on Competence-Based Management, Oslo, Norway, 19 June 1998.
- Spector, J. M. (1998, June). *An Instructional Design Framework for System Dynamics Based Learning Environments*. Presented at the World Conference on Educational Multimedia and Hypermedia, ED-Media '98, Freiburg, Germany, 22 June 1998.
- Spector, J. M. (1998, June). Panel chair, moderator, and discussant: *Constructive Engagement in Open and Distance Learning*. Presented at the World Conference on Educational Multimedia and Hypermedia, ED-Media '98, Freiburg, Germany, 22 June 1998.
- Sioutine, A. V., Davidsen, P. I., & Spector, J. M. (1998, July). Modeling resource management in instructional system development projects. Presented at the Sixteenth International Conference of the System Dynamics Society, Québec City, Canada, 20 July 1998.
- Babic, A., Karlsson, D., Wasson, B., Davidsen, P. I., Spector, J. M., Sancho, J., Ecoello, E., Hatschek, T., Sjordahl, J., & Wigertz, O. (1998, August). *TellMe: In Telemedical Support of Breast Cancer*. Presentation at MEDINFO 98, Seoul, Korea.
- Spector, J. M., & Davidsen, P. I. (1998, August). *Simulation based learning environments*. Seminar at the ICO Fourth International Summer School, Göteborg University, Sweden.
- Spector, J. M., Davidsen, P. I., & Sioutine, A. (1998, September). *Cooperative learning in system dynamics based learning environments*. Presentation at the British Psychological Society Education Section Annual Conference, Exeter University, UK.
- Spector, J. M., Davidsen, P. I., Sioutine, A., & Bahaa, M. (1998, September). *Learner collaboration in simulation based environments*. Presentation at the Association for Learning Technology Annual Conference, Oxford University, UK.
- Spector, J. M., Morgan, K., Vergari, A., Makochieng, M., Vold, V., & Wasson, B. (1998, November). *Collaborative Tele-Learning Designs and Architectures*. Presentation at the Annual Norwegian Informatics Society Meeting, Kristiansand, Norway.
- Fields, D., Ritchey, R., & Spector, J. M. (1999, February). *The revised instructional design competencies*. Presentation at the annual meeting of the Association for Educational Communications and Technology, Houston, Texas, 10 February 1999.
- Spector, J. M. (1999, April). *Transparency and interaction in system dynamics-based learning environments*. Presentation at the American Educational Research Association Annual Meeting, 22 April, 1999, Montréal, Canada.

- Spector, J. M. (1999, April). *Understanding and automating teaching and learning systems*. Panel moderator and discussant for the Structural Learning and Intelligent Systems SIG at the American Educational Research Association Annual Meeting, 23 April, 1999, Montréal, Canada.
- Spector, J. M., Wasson, B., Davidsen, P. I., & Milrad, M. (1999, June). *Designing collaborative distance learning environments for complex domains*. Paper presented at the World Conference on Educational Multimedia and Hypermedia, ED-Media '99, Seattle, Washington, 21 June 1999.
- Makochieng, O., & Spector, J. M. (1999, August). Design, implementation and evaluation of a web-enabled instructional database: A case study of the OrthoDL system. Paper presented at the 8<sup>th</sup> European Conference for Research on Learning and Instruction, Göteborg, Sweden, 25 August 1999.
- Spector, J. M., Guribye, F., Wasson, B., & Lindström, B. (1999, August). *Theoretical foundations for the design of collaborative distance learning*. Paper presented at the 8<sup>th</sup> European Conference for Research on Learning and Instruction, Göteborg, Sweden, 26 August 1999.
- Spector, J. M. (1999, August). *Courseware engineering for learning communities*. Moderator and presenter at a special interactive technology symposium at the 8<sup>th</sup> European Conference for Research on Learning and Instruction, Göteborg, Sweden, 25 August 1999.
- Spector, J. M., Davidsen, P. I., & Bahaa, M. (1999, August). *Training support for decision making and policy formulation in complex domains*. Symposium presentation at the 8<sup>th</sup> European Conference for Research on Learning and Instruction, Göteborg, Sweden, 26 August 1999.
- Spector, J. M., Davidsen, P. I., & Bahaa, M. (1999, August). *Transparency and interaction in system dynamics based learning*. Symposium presentation at the 8<sup>th</sup> European Conference for Research on Learning and Instruction, Göteborg, Sweden, 27 August 1999.
- Milrad, M., Spector, J. M., & Davidsen, P. I. (2000, February). *Building and using simulation based environments for learning about complex domains*. Paper presentation at Mathematics/Science Education & Technology 2000, San Diego, CA, 7 February, 2000.
- Spector, J. M. (2000, April). *Philosophy of instructional design for the 21<sup>st</sup> century*. Invited paper presentation at the American Educational Research Association Annual Meeting, 27 April 2000, New Orleans, Louisiana.
- Spector, J. M. (2000, May). Invited discussant at the 19th EUCEN Conference 4-6 May 2000, University of Bergen, Bergen, Norway.
- Spector, J. M. (2000, June). *Using a system dynamics based approach for crisis management*. Workshop presentation at ITS 2000, Montreal, Canada, 20 June 2000.
- Spector, J. M., Christensen, D. L. & McCormack, D. (2000, June). *Evaluating the impact of system dynamics based learning environments*. Paper presentation at the World Conference on Educational Multimedia, Hypermedia and Telecommunications, ED-Media 2000, Montreal, Canada, 28 June 2000.
- Spector, J. M. (2000, July). *Instructional design for collaborative learning environment in Training*. Invited paper and presentation at the Instructional Design Special Interest Group of the European Association for Research on Learning and Instruction, Barcelona, Spain, 5 July 2000.
- Christensen, D. L., Spector, J. M., Sioutine, A., & McCormack, D. (2000, August). *Evaluating the impact of system dynamics based learning environments: Preliminary study*. Paper presentation at the 18<sup>th</sup> International Conference of the System Dynamics Society, Bergen, Norway, 8 August, 2000.
- Spector, J. M., & Eseryel, D. (2000, October). Assessing adaptive instructional design Tools and methods in Adapt<sup>IT</sup>. Paper presentation at the Association for Educational and Communications Technology Conference, Denver, Colorado, October, 2000.
- Spector, J. M., & Ganesan, R. (2000, October). *Causal influence diagrams as pedagogical and assessment tools*. Presentation at CILT 2000, Tyson's Corner, VA, 28 October 2000.
- Spector, J. M., & Goodyear, P. (2000, November). *Competencies for Online Design, Development and Delivery of Instructional Materials*. Paper presentation at the WebNET 2000 Conference, San Antonio, Texas, November, 2000.
- Spector, J. M., Ganesan, R., & Edmonds, G. S. (2001, April). *Modeling and discourse in learning: The changing nature of instructional design for networked learning*. Invited presentation at the annual meeting of the American Educational Research Association, Seattle, WA, 10 April 2001.
- Spector, J. M. (2001, April). *Introduction to the principles of instructional design*. Seminars for Estacio de Sa in Rio de Janeiro and Sao Paulo, Brazil, 23-27 April, 2001.
- Spector, J. M. (2001, May). *Intelligent performance support for instructional design - maybe*. Invited presentation at the International Conference on Instructional Design: Addressing the Challenges of Learning through Curriculum and Technology, Freiburg, Germany, 3 May 2001.
- Spector, J. M., Eseryel, D., & Schuver-van Blanken, M. J. (2001, June). *Current practice in designing training for complex skills: Implications for design and evaluation of Adapt<sup>IT</sup>*. Paper presentation at ED-Media 2001, Tampere, Finland, June 2001.

- Spector, J. M. (2001, August). *Holistic perspectives on integrating technology, learning & instruction*. Invited presentation at the 13<sup>th</sup> Annual Utah State University Instructional Technology Institute, Logan, UT, 29 August 2001.
- Spector, J. M. (2001, August). *Integrating causal influence diagrams and system dynamics into learning for complex domains*. Invited presentation at the 13<sup>th</sup> Annual Utah State University Instructional Technology Institute, Logan, UT, 31 August 2001.
- Spector, J. M., Gray, P. J., Doughty, P. L., Robinson, D. J., Arnold, P. P., Colley, R. C., & Eseryel, D. (2001, October). *The Mellon project: Cost and learning effects of alternative e-collaboration methods in online settings*. Panel presentation at Teaching Tools 2001, Syracuse University, Syracuse, NY, 11 October 2001.
- Richey, R. C., Spector, J. M., & Klein, J. D. (2001, November). *The ibstpi competencies: Standards, definitions, and use*. Presentation at AECT 2001, Atlanta, Georgia, 8 November 2001.
- Spector, J. M., & Ganesan, R. (2001, November). *Competencies for online teaching*. Presentation at AECT 2001, Atlanta, Georgia, 8 November 2001.
- Spector, J. M. (2001, November). *Competencies, methods and tools for tele-designers and tele-trainers in the workplace*. Invited panel presentation at Telelearning 2001, Vancouver, Canada, 11 November 2001.
- Spector, J. M. (2001, November). *Pedagogical Issues - Simulations in training: System dynamics based learning environments*. Invited presentation at the Saab Training Systems Science Council, University of Twente, Enschede, The Netherlands, 13 November 2001.
- Spector, J. M. (2002, May). *Meet the Editors, Tribute to Gagné, and, Modeling and Conceptual Change*. Sessions led at the annual meeting of Professors of Instructional Design and Technology, Smith Mountain, Virginia, 17-20 May 2002.
- Davidson, B. D., Dusek, J. B., Koszalka, T. A., & Spector, J. M. (2002, September/October). *Technology in the classroom: Payoffs and pitfalls*. Panel presentation sponsored by Faculty Computing & Media Services, Syracuse University, Syracuse, NY, 30 September and 29 October 2002.
- Spector, J. M., Robinson, D. J., Arnold, P. P., Doughty, P. L., & Leavitt, M. C. (2002, October). *Understanding the use of alternative communications and collaboration strategies in online settings*. Panel presentation at Teaching Tools 2002, Syracuse University, Syracuse, NY, 24 October 2002.
- Wang, X., & Spector, J. M. (2002, October). *Virtual projects in distributed learning environments*. Paper presentation at E-Learn 2002, Montreal, Canada, October, 2002.
- Leavitt, M., Spector, J. M., Gray, P., Reduan, N., & Ganesan, R. (2002, October). *Alternative communication methods in online settings: A study of demands and effects*. Panel presentation at E-Learn 2002, Montreal, Canada.
- Driscoll, M., & Spector, J. M. (2002, November). *A tribute to Robert M. Gagné*. Presidential session at the annual meeting of the Association for Educational Communications and Technology, Dallas, TX.
- Spector, J. M., Klein, J. D., Fields, D., de la Teja, I., Grabowski, B., Sims, R. C., & Visser, J. (2002, November). *Developing and validating competencies for classroom and online teachers*. Full paper presentation at the annual meeting of the Association for Educational Communications and Technology, Dallas, TX.
- Spector, J. M. (2002, December). *Competencies for online teaching*. Invited keynote presentation at Vidyakash 2002: International Conference on Online Learning, Ministry of Communications and Information Technology, Mumbai, India.
- Koszalka, T. A., Spector, J. M., & Epling, J. (2003, February). *Making medical education more effective*. Invited presentation for Upstate Medical University, Syracuse, NY, February 6, 2003.
- Spector, J. M. (2003, March). *Educational modeling and simulations*. Invited seminar for graduate students and faculty, Florida State University, Tallahassee, FL, March 31, 2003.
- Spector, J. M. (2003, October). *Questioning Merrill: Constructing the future of instructional science and technology*. Panel organizer and presenter at the annual meeting of the Association for Educational Communications and Technology, Anaheim, CA, October 23, 2003.
- Spector, J. M. (2003, October). *The Future of ERIC - Educational Resources Information Center*. Panel organizer and presenter at the annual meeting of the Association for Educational Communications and Technology, Anaheim, CA, October 23, 2003.
- Klein, J. D., Spector, J. M., Grabowski, B., de la Teja, I., Visser, J., Ganesan, R., & Song, H. D. (2003, October). *Research on instructor competencies*. Presentation at the annual meeting of the Association for Educational Communications and Technology, Anaheim, CA, October 25, 2003.
- Spector, J. M. (2003, October). *Building a course: Pedagogy and BlackBoard*. Presentation at Teaching Tools, Syracuse, New York, October 16, 2003.
- Spector, J. M. (2003, November). *Modeling and Simulation in Learning and Instruction*. Seminar presented at the University of Freiburg, Germany, November, 2003.

- Spector, J. M. (2004, February). Participation in a panel presentation by the Instructional Design and Technology Futures Group at Pennsylvania State University, State College, PA, February, 2004.
- Spector, J. M. (2004, May). *Current issues in new learning*. Invited keynote address at New Learning 2004, Skiathos, Greece, 10-12 May 2004.
- Ganesan, R., & Spector, J. M. (2004, October). *Teaching philosophies and practices of highly experienced online educators*. Presentation at the Association for Educational Communications and Technology, Chicago, IL, October 21, 2004.
- Spector, J. M., & Koszalka, T. A. (2004, October). *Assessing learning in complex domains*. Presentation at the annual meeting of the Association for Educational Communications and Technology, Chicago, IL, October 22, 2004.
- Spector, J. M. (2004, October). *Where are we going and how will we get there?* Panel presentation at the Association for Educational Communications and Technology, Chicago, IL, October 22, 2004.
- Spector, J. M., & Grabowski, B. (2004, October). *Past, present and future of training support and instructional technologies*. Presidential panel at the Association for Educational Communications and Technology, Chicago, IL, October 23, 2004.
- Spector, J. M. (2004, December). *Advances in cognition, learning and performance in the digital age*. Invited keynote address at Cognition and Exploratory Learning in the Digital Age (CELDA 2004), Lisbon, Portugal, 15-17 December, 2004.
- Spector, J. M., Dennen, V. P., & Koszalka, T. A. (2005, March). Individual and collaborative construction of causal concept maps: An online technique for learning and assessment. *Proceedings of the International Conference for Methods and Technologies for Learning*. Palermo: Institute for Educational Technology, Italian Research Council.
- Spector, J. M., Dennen, V. P., & Koszalka, T. A. (2005, April). *Causal maps, mental models and assessing acquisition of expertise*. Presentation for the Technology, Instruction, Cognition and Learning Special Interest Group at the Annual Meeting of the American Educational Research Association, Montreal, Canada, April, 2005.
- Spector, J. M., & Koszalka, T. A. (2005, October). *Annotated causal concept maps: An online technique for learning and assessment*. Presentation at the annual meeting of the Association for Educational Communications and Technology, Orlando, FL, October, 2005.
- Strobel, J., Spector, J. M., Jonassen, D. H., Seel, N. M., & Hung, W. (2005, October). *Learning by modeling*. Panel presentation at the annual meeting of the Association for Educational Communications and Technology, Orlando, FL, October, 2005.
- Visser, J., Spector, J. M., Stirling, D., Rogoza, C., Bransford, J., Beaudoin, M., van Merriënboer, J. J. G., & La Point, D. (2005, October). *Learners in a changing learning landscape: New roles and expectations*. Presidential panel presentation at the annual meeting of the Association for Educational Communications and Technology, Orlando, FL, October, 2005.
- Gibbons, A. S., Spector, J. M., Wager, W., Boling, E., Schwier, R. (2005, October). *Building the culture of instructional design: Reflection on IDT futures*. Panel presentation at the annual meeting of the Association for Educational Communications and Technology, Orlando, FL, October, 2005.
- Spector, J. M., & Dennen, V. P. (2005, December). *Bridging the gap between learning and technology*. Invited CELDA 2005 Tutorial Session, Porto, Portugal, 14 December 2005.
- Spector, J. M. (2006, April). *Using technology to assess technology-facilitated learning in complex domains*. Paper presentation at the annual meeting of the American Educational Research Association, San Francisco, California, April, 2006.
- Spector, J. M. (2006, June). *From learning to instruction: Adventures and advances in instructional design*. Invited keynote address at the biennial meeting of the European Association for Research on Learning and Instruction, Special Interest Groups on Instructional Design and Computer-based Learning and Instruction, Leuven, Belgium, June, 2006.
- Spector, J. M., Seel, N. M., & Visser, J. (2006, June). *Central research problems in learning and instruction*. Presented via Web-conferencing to the first annual AECT summer research symposium, Bloomington, IN, June 23, 2006.
- Johnson, T. E., O'connor, D. L., Pirnay-Dummer, P. N., Ifenthaler, D., Spector, J. M., & Seel, N. M. (2006, September). *Comparative study of mental model research methods: Relationships among ACSMM, SMD, MITOCAR and DEEP Methodologies*. Second International Conference on Concept Mapping, San José, Costa Rica, September, 2006).
- Burton, J., Jonassen, D. H., Reigeluth, C. M., & Spector, J. M. (2006, October). *Building the research bridge: How do we connect theory to research?* Panel presentation at the Annual Meeting of the Association of Educational Communications and Technology, Dallas, TX, October 13, 2006.

- Spector, J. M., Merrill, M. D., Gibbons, A., Molenda, M., & Lockee, B. (2006, October). *The third edition of the Handbook of Research on Educational Communications and Technology*. Presidential session at the Annual Meeting of the Association of Educational Communications and Technology, Dallas, TX, October 13, 2006.
- Spector, J. M. (2006, November). *Generating and assessing stories in support of learning and instruction*. Invited presentation at the Air Force Research Laboratory workshop "Storytelling as an Instructional Method: In Search of Theoretical and Empirical Foundations," Mesa, AZ, November 7-8, 2006.
- Spector, J. M. (2006, December). *Assessing who is learning and how*. Invited keynote presentation at the annual meeting of the Australian Society for Computers in Learning in Tertiary Education (ASCILITE 2006) in Sydney, Australia, December 4, 2006.
- Spector, J. M., & Dennen, V. P. (2006, December). *Supporting and assessing learning in complex problem domains: Perspectives from cognitive science and educational technology*. Invited tutorial presentation at Cognition and Exploratory Learning in the Digital Age (CELDA 2006) Conference in Barcelona, Spain, December 8, 2006.
- Spector, J. M. (2007, January). *Trends and issues in e-learning research and development*. Invited presentation for the National Science and Technology Program for e-Learning, Taipei, Taiwan, January 24, 2007.
- Spector, J. M. (2007, January). *Making educational research count*. Invited presentation for the National Science and Technology Program for e-Learning, Taipei, Taiwan, January 24, 2007.
- Spector, J. M., & Ross, S. M. (2007, April). Journal talks: *Educational Technology Research and Development*. Annual meeting of the American Educational Research Association, Chicago, IL, April 11, 2007.
- Spector, J. M. (2007, July). *Instructional modeling and simulation*. Seminar presented at the University of Freiburg, Germany, July, 2007.
- Spector, J. M., & Luschei, T. (2007, September). Invited faculty workshops on transforming training packets into certified learning packets, curriculum development and evaluation, computer-based learning and instructional materials, action research, technology in strategic planning, and web-based collaboration at Universitas Terbuka, Jakarta, Indonesia, September, 2007.
- Spector, J. M. (2007, October). *Training and performance improvement in the workplace*. Invited panel presentation at the 51<sup>st</sup> annual meeting of the Human Factors and Ergonomics Society, Baltimore, Maryland, October, 2007.
- Spector, J. M. (2007, October). *Update on the third edition of the Handbook of Research on Educational Communications and Technology*. Presented at a presidential session at the Annual Meeting of the Association of Educational Communications and Technology, Anaheim, CA, October 25, 2007.
- Huang, W. D., Johnson, T. E., & Spector, J. M. (2007, October). *Feasibility of using game strategies for training various outcomes*. Paper presentation at the Annual Meeting of the Association of Educational Communications and Technology, Anaheim, CA, October 26, 2007.
- Gibbons, A., Boling, E., Parrish, P. E., Schwier, R., Spector, J. M., & Wilson, B. (2007, October). *Different takes on a common design experience: A kaleidoscope of design perspectives*. Panel presentation at the Annual Meeting of the Association of Educational Communications and Technology, Anaheim, CA, October 26, 2007.
- Nielsen, M. C., Strand, E., Spector, J. M., & Savenye, W. (2007, October). *Developing faculty expertise in integrating technology into teaching and learning across campus*. Paper presentation at the annual meeting of the Association of Educational Communications and Technology, Anaheim, CA, October 26, 2007.
- Spector, J. M., & Ross, S. M. (2008, March). Journal talks: *Educational Technology Research and Development*. Roundtable Presentation at the annual meeting of the American Educational Research Association, New York, NY, March 25, 2008.
- Spector, J. M., & Johnson, T. E. (2008, March). Knowledge representations, associated theories and implications for instructional systems: Dialogue on deep structures. Panel discussant at the annual meeting of the American Educational Research Association, New York, NY, March 25, 2008.
- Spector, J. M., & Johnson, T. E. (2008, March). Design considerations for integrating concept maps into learning and assessment. Paper presentation at the annual meeting of the American Educational Research Association, New York, NY, March 26, 2008.
- Pirnay-Dummer, P., & Spector, J. M. (2008, March). Modeling complex systems: Language, association and re-representation. Paper presentation at the annual meeting of the American Educational Research Association, New York, NY, March 26, 2008.
- Spector, J. M. (2008, April). Publishing educational technology research in refereed journals. Workshop conducted at the Korean Society for Educational Technology, Seoul, South Korea, April, 2008.
- Spector, J. M. (2008, April). Educational technology research trends: Technology enhanced assessments. Invited keynote address at the Korean Society for Educational Technology, Seoul, South Korea, April, 2008.

- Spector, J. M. (2008, May-June). Invited faculty workshops on developing a tutorial for instructional design, conducting institutional research, developing training for online tutors, and developing an online tutorial for classroom action research. Universitas Terbuka, Jakarta, Indonesia, May-June, 2008.
- Spector, J. M. (2008, June). *Assessing learning in complex domains: A look at representations of mental models*. Invited presentation at the Association for Educational and Communications Technology Summer Research Symposium, Bloomington, Indiana, June 21, 2008.
- Spector, J. M. (2008, July). Grand research challenges in technology-enhanced learning. Invited panelist at the 8<sup>th</sup> IEEE International Conference on Advanced Learning Technologies, Santander, Spain, July 4, 2008.
- Pirnay-Dummer, P., Ifenthaler, D., & Spector, J. M. (2008, October). Highly integrated model-based assessment technology and tools. Award winning presentation at the Cognition and Exploratory Learning in the Digital Age Conference, Freiburg, Germany, October 13, 2008.
- Spector, J. M. (2008, November). Building a technology research agenda: An early career symposium. Mentor and panel presentation in an NSF funded led by Chandra Orrill at the Annual Conference of the Association of Educational Communications and Technology, Orlando, FL, November 4-5, 2008.
- Kim, H., & Spector, J. M. (2008, November). An investigation of the effects of model-centered instruction in individual and collaborative contexts: The case of acquiring instructional design expertise. Presented at the Annual Conference of the Association of Educational Communications and Technology, Orlando, FL, November 6, 2008.
- Spector, J. M., & Kim, C. (2008, December). Teaching complex tasks. Dynamic formative assessments and teaching-as-design. Presentation at the Australian Association for Research in Education International Education Research Conference., Brisbane, Australia, December 3, 2008.

## OTHER PRESENTATIONS & WORKSHOPS

- Spector, J. M. (1987, October). *Artificial intelligence*. Presentation to the Kiwanis Club, Anniston, AL.
- Spector, J. M. (1988, March). *Introduction to Ada*. Workshop presented at Enterprise Junior College, Dothan, AL.
- Spector, J. M. (1988, April). *LOTUS 123, Advanced LOTUS 123, and Symphony*. Workshops for the Management Development Center, Jacksonville, AL.
- Spector, J. M. (1988, May). *Computer resources at JSU*. Presentation for the Calhoun County Commissioners, Jacksonville, AL.
- Spector, J. M. (1988, June). *Introducing LOTUS 123 & dBase III*. Workshop presented for the Data Processing Management Association, Jacksonville, AL.
- Spector, J. M. (1988, October). *Expert systems in instructional design*. presentation to the Computer Science Club, Jacksonville State University, AL.
- Spector, J. M. (1989, March). *Recursion in Pascal*. Presentation at Anniston high School, Anniston, AL.
- Kyllonen, P. C., Spector, J. M., & Regian, J. W. (1991, December). *Advances in learning and instruction*. Presentation at the US Air Force Academy, CO.
- Spector, J. M. (1992, July). *LOGO and instructional design*. Presented at the University of Barcelona, SPAIN.
- Spector, J. M. (1995, March). *Intelligent performance for courseware development*. Presented at Stord College, Stord, NORWAY.
- Spector, J. M. (1995, May). *Intelligent performance support for instructional design*. Presented at Télé-université, Montreal, CANADA.
- Spector, J. M. (1996, March). *Design of learning environments for IT-users*. Presented at the external examination at dissertation defense of Lena Holmberg at Göteborg University, SWEDEN.
- Spector, J. M., Davidsen, P. I., & Nielsen, M. (1997, June). *Instructional systems project management*. Seminar sponsored by the International Consortium for Courseware Engineering at the University of Bergen, 8-12 June, 1998.
- Spector, J. M. (1998, July). *Exploring the Dimensions of Performance Improvement*. 20-21 July 1998, University of Bergen, Norway. Workshop organizer and moderator.
- Spector, J. M. (1998, September). *Education for the 21st Century in Environmental Sciences: A Global Perspective*. 28 - 30 Sep 1998, University of Bergen, Norway. Workshop organizer and moderator.
- Spector, J. M. (1999, January). *Technology-based learning and instruction*. Seminar for Kværner AS. Göteborg, Sweden, 7-8 January 1999.
- Spector, J. M. (1999, February). *Designing learning environments: Historical perspective & foundations*. Invited presentations for graduate students in Pedagogical Information Science and System Dynamics at the University of Bergen, Bergen, Norway, February 1999.

- Spector, J. M. (1999, February). *Intelligent performance support for instructional design: Where is the intelligence and is it artificial?* Invited graduate seminar at the Department of Instructional Design, Development & Evaluation, Syracuse University, Syracuse, New York, 16 February 1999.
- Spector, J. M. (1999, February). *Modeling the dynamics of large scale developments: What are the implications for instructional design?* Invited faculty seminar at the School of Education, Syracuse University, Syracuse, New York, 16 February 1999.
- Spector, J. M. (1999, March). *Philosophical implications for the design of instruction about complex systems.* Invited presentation at the conference on epistemology, psychology and instruction sponsored by the University of Twente and the EARLI Instructional Design Special Interest Group. Enschede, The Netherlands: University of Twente.
- Spector, J. M. (1999, March). *Constructivist implications for instructional planning.* Invited seminar at the School of Pedagogy, Göteborg University, Göteborg, Sweden, 12 March, 1999.
- Spector, J. M. (1999, March). *Technology based learning.* Invited presentation at the University of Bergen Kollegiet, Sølstrand, Norway, 24 March 1999.
- Spector, J. M. (1999, October). *Integrated & Holistic Perspectives on Learning, Instruction & Technology.* Conference organizer & moderator. University of Bergen, Norway, 1-2 October 1999.
- Spector, J. M. (1999, October). Technology and collaborative learning. Invited presentation at the 10<sup>th</sup> Network Conference on University and College Pedagogy, University of Bergen, Norway, 19-20 October 1999.
- Spector, J. M. (1999, October). *Information & communications technologies for learning and instruction.* Invited presentation at the RABILDA Conference, Bergen, Norway, 23 October 1999.
- Spector, J. M., Vold, V., Melingen, G. O., Guribye, F., Rysjedal, K., & Baggetun, R. (1999, November). *Technology in teaching and learning.* Invited presentation at the University of Bergen, Dugnad møte om IKT-basert undervisning, Bergen, Norway, 24 November 1999.
- Spector, J. M. (2000, March). *Challenges of distance education: An international perspective.* Presentation for University College, Syracuse, NY, 9 March 2000.
- Spector, J. M. (2000, April). Online interview for InTRO (Instructional Technology Online). Retrieved on December 20, 2004 from <http://www.gsu.edu/~wwwitr/>
- Spector, J. M. (2000, November). *Integrated and holistic perspectives on learning, technology and instruction: The view from IDD&E.* Presentation for the Syracuse University Study Council, Syracuse, NY, 15 November 2000.
- Spector, J. M. (2001, September). *A model to foster decision making and planning for technology integration.* Invited presentation for Catalyst PT3 Project Leadership hosted by the Office of Professional Development, Syracuse, NY, 13 September 2001.
- Nielsen, M., Spector, J. M., Savenye, W., & Strand, L. (2002, July-August). *Teaching technology workshop.* San Marcos, TX: Southwest Texas State University, 22 July - 9 August, 2002.
- Spector, J. M. (2002, September). *Introduction to knowledge management.* Workshop for the National Family Planning Coordinating Board of Indonesia (BKKBN), Syracuse, NY, 18 September 2002.
- Nielsen, M., Spector, J. M., Savenye, W., & Strand, E. (2002, 2003, 2004, 2005, 2006, 2007) *Teaching with technology workshop.* San Marcos, TX: Southwest Texas State University/Texas State University.
- Spector, J. M. (2004). Conference organizer. Digital Empowerment Summer Institute: The Internet and Democracy. Syracuse, NY: Syracuse University Center for Digital Literacy.
- Spector, J. M. (2004, September). *Assessing acquisition of expertise in complex domains.* Invited tutorial at the International Conference for Advanced Learning Technology (ICALT) Joensuu, Finland, 1 Sep 2004.
- Sims, R., Grabowski, B., de la Teja, I., Spector, J. M., Russ-Eft, D. & Lee, M. (2005, June). Competencies for e-learning. Workshops based on ibstpi competencies in Melbourne, Brisbane and Sydney, Australia, June 2005.
- Spector, J. M. (2005, June). Assessing learning in complex domains. Invited presentation for faculty and staff at the University of New South Wales, Sydney, Australia, 27 June 2005.
- Spector, J. M. (2006, March). Mental models workshop. Member of the expert panel (with N. M. Seel & T. E. Johnson). Florida State University, Tallahassee, Florida, 27-28 March, 2006.
- Spector, J. M. (2006, July). Cyber-security workshop (funded primarily by the Norwegian Research Council), Agder University College, Grimstad, Norway, July 19-22, 2006.
- Spector, J. M. (2007, September). Editor's panel: How to get published in ETR&D and other educational technology journal. 1<sup>st</sup> Annual Research in Education Conference, Florida State University, Tallahassee, Florida, September 28, 2007.
- Spector, J. M., Ifenthaler, D., Pirnay-Dummer, P., & McKweon, J. (2008, November). Highly interactive model-based assessment tools and technologies. Workshop at the Annual Conference of the Association for Educational Communications and Technology, Orlando, Florida, November 4, 2008.

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## GRADUATE/POST-GRADUATE SUPERVISION/COMMITTEES

- Holmberg, Lena. (1996, Feb). *Design of learning environments for IT-users*. External examiner at dissertation defense at Göteborg University, SWEDEN.
- Kang, Benny. (1997, Feb). *Upstream processes in courseware engineering*. External examiner at dissertation defense at Lancaster University, UK.
- Andersen, Jennifer. (1998, Dec). *Water allocation in arid and semi-arid regions*. Internal examiner at thesis defense at the University of Bergen, NORWAY.
- Ullah, Qudrat. (1999, May). *Dynamics of electricity supply, resources, and pollution*. Internal examiner at thesis defense at the University of Bergen, NORWAY.
- Xiaqian, Ning (1999, May). Impacts of budget contingency management on project performance. Internal examiner at thesis defense at the University of Bergen, NORWAY.
- Akıncı, Z. Beril (1999, September). *Corporate Culture and Organizational Communication*. Visiting EIST PhD Researcher from Ege University, Izmir, Turkey. External examiner at dissertation defense at Ege University, Sep 1999.
- Makochieng, Mark (1999, October). *Effects of information technology on the learning process: Formative evaluation of a technology based curriculum for postgraduate orthodontics education*. Supervisor, *Hovedfag* thesis at the Department of Information Science, University of Bergen, Oct 1999.

- Christensen, Dean. (1999-2000). Fulbright Research Fellow at EIST, University of Bergen, NORWAY.
- Carter, Willajoya (2000, April). *"Set Free" without stereotypes and prejudices: Multiple perspectives on facilitating elementary inclusion for graduates of an inclusive preschool*. External reader, doctoral examination at the School of Education, Syracuse University, Syracuse, NY, April 2000.
- Soojung, Jang (2000, June). *Psycho-social criteria in student evaluation of college teachers*. Dissertation committee, School of Education, Syracuse University, Syracuse, NY, June 2000.
- Chalmers, Patricia (2000, September). *A study of the role of "continuous organizers" in retention of computer enhanced training material*. Dissertation committee. School of Education, University of Minnesota, Minneapolis, MN.
- Lewis, Barbara (2001, May). *Learning effectiveness: Efficacy of quizzes vs. discussions in on-learning*. Dissertation committee, School of Education, Syracuse University, Syracuse, NY.
- Abdul Karim, Nor Shahriz (2001, June). *Discretionary Behavior of Information and Communication Technology Supported ad hoc Task Groups*. External reader, School of Information Studies, Syracuse University.
- Euto, Linda R. (2002, April). *We would have the answers if only we knew the questions: An exploration of computer questioning behavior among first- and second- grade students*. Dissertation committee. School of Education, Syracuse University, Syracuse, NY.
- Qudrat-Ullah, Hassan (2002, June). *Decision making and learning in complex dynamic environments*. External examiner. National University of Singapore, Department of Decision Sciences.
- Jabot, Michael. (2002, June). *Teacher pedagogical content knowledge as a predictor of student learning gains in direct current circuits*. External reader, doctoral dissertation, Syracuse University, Syracuse, NY, June 2002.
- Hallagan, Jean Elizabeth (2003, April). *Teachers' models of student responses to middle school algebraic tasks*. External reader, School of Education, Syracuse University.
- Sawicka, Agata (2004, June). *Dynamics of security compliance: Case of IT-based work environment*. External opponent, Department of Information Science and Media Studies, University of Bergen, Norway.
- Ganesan, Radha (2004, July). *Perceptions and practices of expert teachers in technology-based distance and distributed learning environments*. Advisor, Dissertation supervisor, School of Education, Syracuse University.
- Reid, Doug (2004, July). *An examination of the capabilities required by university tutors in online learning environments and the factors affecting the relative importance of these capabilities*. External examiner, School of Education, Edith Cowan University, Western Australia.
- Solberg, Tom (2004, October). *PROFFT- A usability study and evaluation of the user experience*. External examiner, Department of Information and Media Studies, University of Bergen, Norway.
- Revercomb, Pamela. L (2005). *Senior adult Internet information literacy: Observations of information seeking skills in the senior adult Internet course*. Dissertation committee. School of Information Studies, Syracuse University.
- Storrings, Deborah. A. (2005). *Attrition in distance education: A meta-analysis*. Advisor, Dissertation committee. School of Education, Syracuse University.
- Lim, Jung (2006). *Part- and whole-task training approaches of the 4C/ID-Model for enhanced learning of complex cognitive skills*. Dissertation committee. Educational Psychology & Learning Systems, Florida State University.
- Gogus, Aytac Simsek (2006). *Individual and situation factors that influence teachers' perspectives and perceptions about the usefulness of the graphing calculator on the New York State Math B Regents exam*. Dissertation supervisor. School of Education, Syracuse University.
- Eseryel, Deniz (2006). *Expert conceptualizations of the domain of instructional design: An investigative study on assessing complex problem-solving outcomes*. Advisor, Dissertation committee. School of Education, Syracuse University.
- Kim, Soyoun (2006). *Juxtaposition of semiotic mediation with social mediation: The effect of text types and social interaction on moral judgment*. Dissertation committee. Educational Psychology & Learning Systems, Florida State University.
- Milrad, Marcelo (2006). *Designing interactive learning environments to support learner's understanding in complex domains*. Dissertation supervisor. School of Social Sciences, University of Bergen, Norway.
- Vibeke Vold (2007). *Age related developmental aspects in technological interface design*. External examiner, Department of information science and media studies, University of Bergen, Norway.
- Maxim Mozgovoy (2007). *Enhancing computer-aided plagiarism detection*. Dissertation Committee/Reviewer. University of Joensuu, Finland.
- Magnhild Viste (2008). *Visualization of complex systems*. Dissertation committee – lead external examiner. Faculty of Social Sciences, University of Bergen, Norway.

- Hyewon Kim (2008). *An investigation of the effects of model-centered instruction in individual and collaborative contexts: The case of acquiring instructional design expertise*. Dissertation supervisor. Educational Psychology & Learning Systems, Florida State University.
- Roberto Perez (2008). *Animated pedagogical agents as Spanish language instructors: The effect of accent, appearance, and type of activity on student performance, motivation and perception of agent*. Dissertation Committee. Educational Psychology & Learning Systems, Florida State University.
- Kevin Harris (2008). *Deliberate practice, mental representations and skilled performance*. Dissertation Committee. Department of Psychology, Florida State University.
- Lingguo Bu (2008). *Primes in context using technology: Toward a didactical model for the teaching and learning of prime numbers in middle school mathematics*. Dissertation Committee, College of Education, Florida State University.
- Linda Smith (2008). *Graph and property set analysis: A methodology for comparing mental model representations*. Dissertation supervisor, Educational Psychology & Learning Systems, Florida State University.
- Jeongmin Lee (2008). *Effects of model-centered instruction and levels of expertise on ill-structured problem solving*. Dissertation supervisor, Educational Psychology & Learning Systems, Florida State University.
- Jonathan McKeown (2008). *Using annotated concept map assessments as predictors of performance and understanding of complex problems for teacher technology integration*. Dissertation supervisor, Educational Psychology & Learning Systems, Florida State University.
- Annya Hernandez-Gomez (in progress). *Depressive symptoms and caregiver burden among older adult Hispanic caregivers: The contributing role of acculturation*. (Prospectus successfully defended, October, 2005). Dissertation committee. Psychology Department, Florida State University.
- Aaron Kim (in progress). Dissertation supervisor, Educational Psychology & Learning Systems, Florida State University.

## SPONSORED FACULTY

- Christensen, Dean (1998). Visiting Fulbright Research Professor from Cyber Learning Corporation, St. Paul, Minnesota at the University of Bergen, Norway.
- Lee, JaeMu (2004-2005). Visiting Korean Professor from Busan National University at Syracuse University and Florida State University, USA.
- Kamat, Vasudha (2006). Visiting Fulbright Research Professor from SNDT Womens University, Mumbai, India at Florida State University-Learning Systems Institute, USA.
- Kester, Liesbeth (2006). Visiting Fulbright Research Scholar from the Open University of the Netherlands at Florida State University-Learning Systems Institute, USA.
- Hillen, Stefanie (2007). Visiting Postdoctoral Researcher from Agder University College, Grimstad, Norway at Florida State University-Learning Systems Institute, USA.
- Jyoti Bawane (2008/2009). Visiting Fulbright Research Professor from the Indian Institute of Education, Center for Educational Studies, Pune, India.

## PROFESSIONAL GOALS

Develop and validate methodologies to assess progress of learning in and about complex domains.

Apply advanced technologies (e.g., artificial intelligence, interactive multimedia, object orientation, systems dynamics) to improve learning, instruction and performance in complex domains.

Continue research and development in the areas of: computer-mediated collaborative learning and instruction; instructional strategies for complex decision-making and problem-solving; intelligent performance support for instructional design; interactive learning environments; system dynamics based learning environments; distance and distributed learning.

Continue involvement with the academic community by: mentoring graduate students in educational psychology and instructional technology; serving as editor of *Educational Technology Research & Development* and on the editorial boards of leading journals in instructional science; promoting interdisciplinary research in learning and instruction.

Collaborate with other academic organizations, businesses, and various governmental agencies on common goals in the area of advanced learning environments (e.g., the International Board of Standards for Training,

Performance and Instruction – ibstpi, the IEEE Learning Technology Technical Committee, the Learning Development Institute, and LICEF-CIRTA).

## PERSONAL INTERESTS

Backpacking, hiking, reading philosophy, learning new computer technologies, studying the history of science, skiing, playing tennis, writing stories

## FAMILY

ChanMin Kim Spector (wife)	PhD in Instructional Systems, Florida State University
Daniel E. Spector (brother)	Retired historian, Jacksonville, AL
Peggy Reach (sister)	Retired government administrator, Fairhope, AL
Minnie Skinner (sister)	Reading Teacher/Coach, Summerdale, AL
Randolph C. Bernard (son)	High School Teacher/Administrator, Lafayette, LA
Julia M. Spector (daughter)	Graduate, Trinity University, San Antonio, TX
Samuel D. Spector (son)	Graduate, Trinity University, San Antonio, TX
David E. Spector (son)	Senior, East Texas Baptist University, Marshall, TX
Miriam P. Spector (daughter)	12 <sup>th</sup> Grade, Bracken Christian School, Bulverde, TX

## REFERENCES

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## TEACHING EXPERIENCES

Dr. Spector has taught courses in computer science, educational psychology, instructional science, and philosophy at both the undergraduate and graduate level for more than 25 years. He was an Associate Professor of Computer Science with tenure at Jacksonville State University from 1984 until 1991. While a Senior Scientist for Instructional Systems Research at Armstrong Laboratory from 1991-1996, he taught courses at the undergraduate level on a part-time basis in philosophy and was a regular contributor to graduate level courses on the psychology of adult learning and instructional design at the University of Minnesota and at Göteborg University. In becoming Program Director for Educational Information Science & Technology at the University of Bergen, Dr. Spector was externally reviewed and qualified as Full Professor with tenure and taught the learning environments course in the International Masters Degree program in System Dynamics as well as lecturing in graduate pedagogical information science courses at the Universities of Bergen and at Göteborg. In 1997, he began teaching the design of learning environments in the new Masters curriculum in Telematics at Agder University College, Norway, where he also held a Professor II appointment. He taught graduate courses in instructional design, development and evaluation at Syracuse University and in instructional systems at Florida State University - he was a tenured Full Professor at both of these institutions. He has served as the external examiner on several European dissertation defenses and supervised a Norwegian dissertation study. Professor Spector led the International Center for Learning and Enhanced Performance Studies (ICLEPS) at the Learning Systems Institute, Florida State University and is now a tenured Full Professor at the University of Georgia where he teaches graduate courses in the Educational Psychology and Instructional Technology department.

## BIOGRAPHICAL SKETCH

J. Michael Spector is a Professor and Research Scientist at the Learning and Performance Support Laboratory at the University of Georgia, Athens, Georgia. Previously, he was the Associate Director of the Learning Systems Institute, Professor of Instructional Systems, and Principal Investigator for the International Center for Learning, Education and Performance Systems at Florida State University (2004-2008). Prior to that, he was Professor and Chair of Instructional Design, Development & Evaluation at Syracuse University, Syracuse, New York (2000-2004), and Professor of Information Science and Director of the Educational Information Science & Technology Research Program at the University of Bergen, Norway (1996-1999). From 1991 through 1996, he was the Senior Scientist for Instructional Systems Research at the United States Air Force Armstrong Research Laboratory. He is a distinguished graduate of the United States Air Force Academy (1967); he earned a Ph.D. in Philosophy from The University of Texas at Austin (1978). Before joining Armstrong Laboratory, Dr. Spector was an Associate Professor of Computer Science at Jacksonville State University, specializing in Software Engineering and Artificial Intelligence. His recent research is in the areas of intelligent performance support for instructional design, system dynamics based learning environments, assessing learning in complex domains, and technology integration in education. Current research projects include a Comprehensive School Reform technology integration effort in rural schools in the Southeast funded by the Department of Education and the Johns Hopkins PACER Higher Education effort funded by the Department of Homeland Security. He has published numerous refereed journal articles and book chapters in the area of instructional design research and has edited three volumes on concepts and issues involved in technology enhanced learning and instruction. He is active in professional associations and serves on the editorial boards of several international journals. He was awarded a Fulbright research fellowship (1995/1996) to work at the University of Bergen creating and testing an interactive simulation of project dynamics for large-scale courseware development efforts. Dr. Spector served on the International Board of Standards for Training, Performance and Instruction (*ibstpi*) as Executive Vice President, is on the Executive Committee of the IEEE Learning Technology Task Force, is a past-President of the Design and Development Division of the Association for Educational and Communications Technology (AECT), the AECT President-elect, and the Editor of *ETR&D-Development*. He edited the third edition of the *Handbook of Research on Educational Communications and Technology* (2008) along with M. David Merrill, Jeroen van Merriënboer and Marcy Driscoll. Dr. Spector will be moving to the Learning and Performance Support Laboratory at the University of Georgia in January 2009.

### Core competencies include:

Assessing and Evaluating Learning and Instruction  
Automated Support for Instructional Design  
Epistemology in Instructional Design  
Knowledge Management in Instructional Design

Learning in Complex Domains  
Open and Distance Learning Design/Development  
System Dynamics Applications in Education and Training

Technology Integration in Learning, Instruction  
and Performance Support