VITA
Peggy A. Ertmer

Academic Record

B.A.	June 1973	University of Denver, Denver, CO
	Major(s)	Elementary Education, Educational Psychology
M.A.	May 1976	Cardinal Stritch College, Milwaukee, WI
	Major	Special Education - Learning Disabilities
Ph.D.	December 1995	Purdue University, West Lafayette, IN
	Dissertation	*Learning from Case-Based Instruction: The Role of Perceived Value, Learning Orientation, and Reflective Self-Regulation*

Committee: Dr. Timothy Newby (Chair), Dr. James Lehman, Dr. Dale Schunk, Dr. Mark Volkmann

Academic Appointments

Full Professor, August 2007 to present
Educational Technology, Department of Curriculum and Instruction, Purdue University, West Lafayette, IN

Associate Professor, August 2001 to July 2007
Educational Technology, Department of Curriculum and Instruction, Purdue University, West Lafayette, IN

Assistant Professor, August 1997 to July 2001
Educational Technology (Ed Tech), Department of Curriculum and Instruction, Purdue University, West Lafayette, IN

Adjunct Professor, January 1997 to 2000
College of Technology, Instructional and Performance Technology Program, Boise State University, Boise, ID

Visiting Assistant Professor, August 1996 to May 1997
Educational Computing and Instructional Development (ECID), Department of Curriculum and Instruction, Purdue University, West Lafayette, IN

Visiting Assistant Professor, June 1996 to August 1996
Department of Educational Studies, Purdue University, West Lafayette IN

Visiting Assistant Professor, August 1995 to May 1996
Special Education, Department of Educational Studies, Purdue University, West Lafayette IN

Graduate Teaching Assistant, June 1991 to August 1995
Educational Computing and Instructional Development (ECID), Department of Curriculum and Instruction, Purdue University, West Lafayette, IN

Evaluation Assistant, September 1991 to August 1995
Center for Instructional Services, Purdue University, West Lafayette, IN

Teaching Positions (K-12)

Homebound Special Education Teacher, May 1987 to March 1988 and Summer 1988
Fremont Re-1 Schools, Canon City, CO

Learning Disabilities Teacher (K-6), August 1979 to June 1983
Fremont Re-1 Schools, Canon City, CO

Educational Diagnostician (K-6), October 1978 to March 1979

Arapahoe County Public Schools, Littleton, CO

Learning Disabilities Teacher (K-6), August 1975 to June 1978
Milwaukee County Public Schools, Milwaukee, WI

Elementary Classroom Teacher, August 1973 to June 1974
Holy Rosary Elementary School, Milwaukee, WI 53202

3. **Awards And Honors**

   a) Four-year Alumni Scholarship, College of Arts and Sciences, University of Denver, 1969 to 1973

   b) Elected Kappa Delta Pi Honor Society in Education, University of Denver, April 1972

   c) Elected Phi Beta Kappa, University of Denver, May 1972

   d) Graduated University of Denver, Magna Cum Laude, June 1973

   e) Two-year Tuition Grant, Cardinal Stritch College, Fall 1974 to Summer 1976

   f) Outstanding Graduate Teaching Assistant—Department of Curriculum and Instruction, Purdue University, March 1993

   Presented to one C & I graduate teacher each year to recognize a teacher who "uses current materials and methods, is organized and works effectively with students in explaining difficult concepts, motivates and encourages students, develops empowered learners and a sense of community in the classroom, displays a caring for students as teachers and future educators, provides effective feedback to students and nurtures their growth as learners, provides evidence of reflecting on the teaching process and using this information for self-improvement."

   g) Outstanding Graduate Instructor—School of Education, Purdue University, March 1993

   Presented to one graduate instructor in the School of Education each year to recognize a teacher who displays the qualities listed above.

   h) Outstanding *Performance Improvement Quarterly* (PIQ) Article, 1994; sponsored by the Awards of Excellence Program of the National Society for Performance and Instruction (NSPI), 1994

   Presented to the author(s) of one PIQ article each year for an article that offers an "outstanding contribution to the field of Performance and Instructional Technology."

   i) Outstanding Dissertation Award—Department of Curriculum and Instruction, Purdue University, April 1996

   Presented to one C & I graduate student each year to recognize work that "offers a unique theoretical and practical contribution to the field, demonstrates quality and originality, and shows evidence of high quality writing."

   j) Outstanding Journal Article Award; sponsored by the Division of Instructional Development (DID) of the Association for Educational Communications and Technology, February 1997

   Presented to the author(s) of one article each year to recognize outstanding achievement in the instructional development field.

   k) Outstanding Reviewer Award—*Educational Technology Research and Development* Journal, February 1997

   Presented to one reviewer each year to recognize the preparation and submission of "timely reviews that are considered to be highly constructive."

   l) Certificate of Faculty Excellence—Curriculum and Instruction Graduate Student Association, May 1999

Presented to five faculty members in the Department of Curriculum and Instruction in recognition of their excellence as graduate student mentors

m) Best Research Study—*Society for Information Technology and Teacher Education*, 11th International Conference, March 2000

Award given to the paper, "Technology-using teachers: How powerful visions and student-centered beliefs fuel exemplary practice" for being the best research paper presented at the 2000 SITE meeting. Winners are invited to publish their papers in the *Journal of Technology and Teacher Education* and are highlighted in the AACE periodical, *Educational Technology Review*.

n) Outstanding Faculty Teacher Award (co-winner)—Department of Curriculum and Instruction, Purdue University, March 2001

Presented yearly to one faculty member in the Department of Curriculum and Instruction to recognize outstanding teaching achievement

o) Outstanding Faculty Teacher Award—School of Education, School of EducationPurdue University, March 2001

Presented yearly to one faculty memberSchool of Education in the School of Education to recognize outstanding teaching achievement

p) Excellence in Distance Education, Best Credit-Granting Program—Office of Instructional Excellence and Lifelong Learning, Purdue University, March 2001

Presented each year to one faculty member at Purdue University in recognition of outstanding teaching using distance learning delivery media, as well as professional accomplishment and creative, innovative approaches in developing distance learning opportunities.

q) Best Inservice Paper—*Society for Information Technology and Teacher Education*, 12th International Conference, March 2001

Award given to the paper, "VisionQuest: Creating visions and strategies for technology integration," for being the best inservice paper presented at the 2001 SITE meeting. Winners are invited to publish their papers in the *Journal of Technology and Teacher Education* and are highlighted in the AACE periodical, *Educational Technology Review*.

r) Best Innovation in a Graduate Course—*Society for Information Technology and Teacher Education*, 12th International Conference, March 2001

Awarded to the best 2001 SITE paper describing an innovative approach to teaching graduate courses. Given to the paper, "Teacher professional development for problem-based integration of technology." Winners are invited to publish their work in the *Journal of Technology and Teacher Education* and are highlighted in the AACE periodical, *Educational Technology Review*.

s) Research Paper Award—*International Society for Technology in Education, Teacher Education Special Interest Group* (SIGTE), June 2002

Award given to the paper, "Online professional development: Building administrators' capacity for technology leadership" presented at the 2002 National Education Computing Conference (NECC).

t) Outstanding Book in the Field of Instructional Design— sponsored by the Division of Design and Development (DID) of the *Association for Educational Communications and Technology*, November 2002

Presented to the author(s) of one book each year to recognize outstanding achievement in the instructional development field. This award recognized the contribution of *The ID CaseBook* (2nd ed.) to the field.

u) Faculty Mentoring Network — Invited to participate as a mentor, beginning August, 2003.

v) Outstanding Faculty Discovery Award—Department of Curriculum and Instruction, Purdue University, March 2004.

Presented to one faculty member to recognize a record of scholarship during the previous 3-year period. The award emphasized my scholarship of teaching, specifically related to case-based teaching.

w) Certificate of Recognition—Indiana Partnership for Statewide Education, April 2004.

Presented to faculty members nominated for the statewide *Teaching with Technology in a Distance Learning Program* award.

x) Visiting Scholar — University of Southern Queensland, June 21st-July 2nd, 2004.

Appointed as a visiting scholar based on previous scholarship in the areas of case-based instruction and technology integration; invited to present two seminars/workshops on topics associated with online education, integration of ICTs and the engagement of graduate classes in active research; worked with graduate students in areas related to teachers' beliefs about ICT and case-based learning.

y) AECT Intern Mentor — Association for Educational Communications and Technology Conference, October 2005, Orlando FL

One of four professors chosen to interact with and mentor the interns at a breakfast at the annual meeting in Orlando.

z) Best Paper Award — American Educational Research Association, Instructional Technology Special Interest Group (SIG-IT), April 2006

Presented to the author of the best paper sponsored by SIGIT for presentation at the annual AERA conference. This award recognized the contribution of the paper, "*Teacher beliefs: The final frontier in our quest for technology integration*." (see B.1.a.27)

aa) Outstanding Journal Article Award —sponsored by the Division of Design and Development (D&D) of the *Association for Educational Communications and Technology*, October 2006

Presented to the author(s) of one article each year to recognize outstanding achievement in the instructional development field.

bb) Nomination for Outstanding Teaching Award—Department of Curriculum and Instruction, January 2007

cc) Outstanding Graduate Faculty Mentor Award—Nominee of the College of Education, February 2007

dd) Outstanding Faculty Discovery Award—Department of Curriculum and Instruction, Purdue University, March 2007

Presented to one faculty member to recognize a record of scholarship during the previous 3-year period. The award emphasized my scholarship of engagement, specifically related to mentoring graduate students.

ee) Outstanding Paper (2nd place)— sponsored by the TACTL (Technology as an Agent for Change in Teaching and Learning) SIG at AERA, April 2007

ff) Dean's Award for Outstanding Scholarship, Purdue University, College of Education April 2007

Presented to one faculty member in the College of Education for exceptional scholarship during the previous year.

gg) Young Researcher Award—PBL SIG at AERA, 2007.

Awarded to Brian Belland for the paper he co-authored with Krista Simons and Peggy Ertmer, "*Inclusion and problem-based learning: Roles of students in mixed-ability groups*."

hh) Fulbright Distinguished Chair in Learning Technologies, National College of Ireland.

Short-listed for this Fulbright position, July 2007. Selected, but not funded.

ii) Distance Education Incentive Award, Instructional Development Center, Purdue University, Fall 2008

> Awarded for the development and design of an online version of EDCI 513, Foundations of Educational Technology, based on receiving at least a 3/5 on four categories: 1) course design, 2) interaction and collaboration, 3) assessment, 4) learner support. Co-designed the online version with Minchi Kim.

jj) Teaching for Tomorrow Senior Research Faculty, Purdue University, 2008 - 2009

> One of three senior faculty selected to participate as a mentor for junior faculty on teaching issues.

kk) Fulbright Senior Specialist (2008-2013). Approved by the Fulbright Foreign Scholarship Board, The Bureau of Educational and Cultural Affairs of the Department of State, and the Council for International Exchange of Scholars.

ll) American Council on Education (ACE) award to recognize the innovative use of technology to promote internationalization (2010). Special recognition for Web 2.0 project (with Tim Newby)…(there were 4 winners and 7 which received special recognition)

mm) Helping Students Learn Award (2010) – with Tim Newby

> Selected by a committee of students, faculty, and alumni for outstanding innovation in teaching methods, recognizing the effort to internationalize EDCI 27000.

nn) COE Outstanding Graduate Faculty Mentoring Award (2010)

> Presented to one faculty member in the College of Education for outstanding mentoring of graduate students.

oo) Fellow of the Purdue University Teaching Academy (2010).

> One of three new members, university-wide, selected for induction in 2010, based on an application process.

pp) Invited participant in the AECT Breakfast with Champions (2011, 2012, 2013, 2014, 2015, 2016, 2017).

> Identified by the organizing committee as one of the top "champions" in our field – invited to participate by interacting with conference attendees and engaging in conversations related to research and leadership topics. Asked to be a returning champion for the third year in a row.

qq) Two articles among the top five most downloaded ETRD articles in 2011

> Barriers to Tech Integration = #3 with 1014 downloads and Teacher Beliefs = #4 with 953 downloads.

rr) Visiting scholar at the University of Gent, September 3 2012 – October 5 2012. Funded by the University of Gent – Special Research Fund, Visiting Foreign Researcher. Funded for €2800

ss) AECT TED (Teacher Education Division) Award – *Scholarly Advancement of the Field of Educational Technology*, November 2012

tt) Cited as one of the 20 most influential articles in Performance Improvement Quarterly. [Cho, Y., & Park, S. (2012). Content analysis of the 20 most influential articles in PIQ, *Performance Improvement Quarterly, 25*(3), 7-22.] (For Ertmer & Cennamo, 1995, *Teaching instructional design: An apprenticeship approach*).

uu) Invited to participate in EDUsummit 2013: Research-informed strategies to address educational challenges in a digitally networked world. Participation requires a nomination by a member of the international steering committee.

vv) AECT Research and Theory Presentation Award, October, 2013. Awarded for the presentation, "Examining student engagement in the problem space afforded by case-based discussions."

ww) Inducted into Purdue University's Book of Great Teachers. 2013

xx) AECT Division of Distance Learning Best Journal Article Award, October, 2013. Awarded for the article: Ertmer, P. A., Sadaf, A., & Ertmer, D. (2011). Student-content interactions in online courses: The role of question prompts in facilitating higher-level engagement with course content. *Journal of Computing in Higher Education, 23*(2-3), 157-186.

yy) 2014 David H. Jonassen Excellence in Research Award. Given to one AECT member/year who has demonstrated a long-term record of excellence in research in the field of instructional design and technology. This is only the 2nd time the award has been given after its creation in 2012 to honor the career of David Jonassen, who passed away in December, 2012.

zz) 2015 AERA Fellow. Selected to join the Class of 2015 Fellows – the seventh group to be inducted based on nomination by peers.

aaa) 2015 ISDDE Fellow. Awarded the status of Fellow by the *International Society for Design and Development in Education*. October, 2015.

bbb) 2017 Mentor for Early Career Symposium. Association for Educational Communications and Technology.

ccc) 2019 Reviewer Excellence Award. *Educational Technology Research and Development*.

ddd) 2020 Distinguished Development Award. A competitive award presented by the Association for Educational Communications and Technology to scholars who have made extraordinary contributions to the interdisciplinary fields of educational technology research and development.

4. **Biographical Citations**

a) Who's Who of American Women (2006-2007). *Marquis Who'sWho* (25th ed.). Providence, NJ

b) Who's Who in America (2006-2007). *Marquis Who'sWho* (60th ed.). Providence, NJ.

c) Who's Who in American Education (2006-2007). *Marquis Who'sWho* (7th ed.). Providence, NJ.

d) Who's Who in the World (2006). *Marquis Who'sWho* (23rd ed.). Providence, NJ.

e) Global Human Resource Development – *Experts Database* (2009). Included in the GHRD experts database, an international initiative founded by the Graduate School of Human Resource Development at Chung-Ang University (South Korea) and the University of Georgia.

5. **Professional Membership**

AECT   Association for Educational Communications and Technology

- DID - AECT's Division for Instructional Development
- RTD - AECT's Division for Research, Theory, and Development

AERA   American Educational Research Association

- SIG-IT   Instructional Technology Special Interest Group
- SIG-PBL   Problem-based Learning Special Interest Group

PIDT   Professors of Instructional Design and Technology

A. TEACHING FOCUS AND EXPERIENCE

My teaching activities focus on the effective design and implementation of instructional approaches/strategies that support learners' active construction of knowledge in the areas of instructional design and technology, educational research, and technology integration. An emphasis on teaching supports my scholarly activities in these same areas. My engagement activities depend on teaching excellence to reach school-based colleagues as well as professional peers.

1. **Courses Taught In Last Three Years**
   - EDCI 568 *Classroom Applications of the Internet: Using Digital Tools to Support 21st Century Learning* (online)
   - EDCI 588 *Motivation and Instructional Design* (online)
   - EDCI 627 *Special Topics in Educational Technology – Problem-based Learning in the Science and Math Classroom* (face-to-face)
   - EDCI 672 *Advanced Practices in Learning Systems Design* (online and face-to-face)
   - EDCI 590 *Individual Research Project*
   - EDCI 670 *Directed Project in Educational Technology*
   - EDCI 695 *Instructional Development Project*
   - EDCI 698, 699, 699A *Research Thesis*

2. **Contributions to Course and Curriculum Development**
   Course revisions:
   - Revised EDCI 564, *Integration and Management of Computers in Education*, to effectively utilize 2-way video conferencing capabilities to simultaneously reach 20 graduate students enrolled in our Cohort Doctoral program and 20 pre- and inservice teachers enrolled in our computer endorsement program. Course revisions included the addition of electronic listserv discussions, cross-site work teams, debates, and student technology presentations. Spring 1997
   - Updated and redesigned EDCI 673, *Issues/Methods in Educational Technology Research*, to incorporate an apprenticeship-mentoring approach to induct novices into educational technology research practice. Compiled a current set of readings, created course syllabus, and established goals and assessment measures that are reflective of the field of educational technology. Fall 1997
   - Revised EDCI 672, *Advanced Practices in Learning Systems Design*, to completely immerse students into instructional design problems via a case-based instructional approach. Incorporated cases from the new *ID CaseBook* and planned new course activities and assessment measures to assist students in making the transition to case-based learning. Sponsored students' participation in the National ID Case-Based Competition hosted by the University of Virginia. Spring 1998
   - In collaboration with Dr. Lehman revised EDCI 564, *Integration and Management of Computers in Education*, to incorporate a problem-based learning approach to teaching and learning about technology integration. Developed a mini-PBL unit to model the approach, modified course readings and activities to reflect a student-centered emphasis, and facilitated the development of web-based PBL units by 6 teams of k-12 teachers. Fall 2000

- Revised EDCI 660, *Seminar in Educational Technology*, to focus on the process of reading and writing literature reviews and to be delivered completely online via WebCT. Created a course syllabus, objectives, readings, class activities, and assessment measures. Developed and maintained the WebCT course components including course calendar, discussion board, online syllabus, and an internal mail program. Spring 2001

- Revised EDCI 660, *Seminar in Educational Technology,* to focus on current trends and issues in the field of Educational Technology and to be delivered completely online via WebCT. Created a course syllabus, objectives, readings, class activities, and assessment measures. Spring 2002

- Revised EDCI 591W, *Classroom Applications of the WWW*, to include a focus on student-centered learning and how it can be developed, implemented and supported by web technologies. Created a course syllabus, objectives, readings, class activities, and assessment measures. Developed and used an online environment in ANGEL to support course content. Spring 2003

- Revised EDCI 591 N, *Instructional Design and Motivation,* for delivery in WebCT Vista. Created a new course syllabus, weekly discussion activities, and assessment measures. Developed and used WebCT Vista to deliver course content. Fall 2005.

- Revised EDCI 591W (EDCI 568), *Classroom Applications of the Internet* to be taught completely online within WebCT. Created a new course syllabus, weekly discussion activities, and assessment measures. Spring 2007

- Revised EDCI 627, *Problem-based Learning in the Science and Math Classroom*, to incorporate C3Bio content (biomass to biofuels) and to be taught to both in- and pre-service teachers in a 2 week intensive summer workshop. Revised Spring 2011; major revisions made Spring 2012. Taught Summer 2011, 2012.

- Revised EDCI 568, *Classroom Applications of the Internet,* to be taught in our online masters programs as an 8-week course. Revised Fall 2011. Taught Spring 2012, 2013. Supervised 2 other instructors who taught the course in Spring 2013.

- Revised EDCI 672, *Advanced Practices in Learning Systems Design*, to be taught in our online masters program as an 8-week course. Revised Spring and Summer 2012. Taught Fall 2012, 2013, 2014. Supervised 5 other instructors who taught the course in Fall 2013, and coordinated efforts across 8 sections. Assumed responsibility for one additional section (overload) when the instructor failed to engage in her course at the expected level. Supervised 8 faculty (9 sections) who taught the course in Fall 2014. Added a number of new scaffolds to the course to support faculty and student efforts (electronic rubric, instructor facilitation scaffold, student case analysis e-scaffold, etc).

New course development:

- Developed a new course, EDCI 591N, *Issues and Methods in Training Needs Assessment,* to meet changing needs of students in the field of instructional design. Developed a course syllabus, created course activities, and developed assessment procedures that helped students develop the skills necessary to conduct effective needs assessments in organizations of any size. Spring 1998

- Assisted a cross-departmental team in all aspects of course design for the new course, *Learning and Motivation* (EDPS 235), including the development of a conceptual

framework, course goals, topic outline, assignments and activities, evaluation criteria, and suggested reading list. Spring 1998

- Assisted in all aspects of course design and development for a new 1-credit course, *Classroom Applications of Educational Technology* (EDCI 271), to be taught concurrently with EDCI 270. This new course examines issues and techniques related to meaningful integration of educational technology in K-12 classroom settings. Summer 1999

- Co-chaired a cross-departmental, cross-school team responsible for designing and developing a new 2-credit course, *Integrated Curriculum in the Elementary School*, to be offered as part of Block V in the new elementary reform program. Development activities included the creation of a conceptual framework, course goals, topic outline, assignments and activities, evaluation criteria, and suggested reading list. Spring 2000 – Fall 2000

- Developed a new course, EDCI 591E (now EDCI 513), *Foundations of Educational Technology: An Introduction to the Field* to be taken by all new graduate students during their first semester in the educational technology program area. Development activities included the creation of a conceptual framework, course goals, topic outline, assignments and activities, evaluation criteria, and suggested reading list. Spring – Summer 2002

- Co-developed (with Krista Simons) a new offering of EDCI 660, *Seminar in Educational Technology* to examine Problem-Based Learning (PBL) from a variety of perspectives including variations, strengths, and limitations. Development activities included creation of course goals, readings, assignments and weekly class activities. Spring 2005

- Developed a new course, specifically for the Woodrow Wilson, Stem Goes Rural (SGR) Fellows: EDCI 627, *Problem-based Learning in the Science and Math Classroom*. Worked with Jim Lehman and a team of graduate students to develop the required SGR course using a PBL framework. Development activities included the creation of course goals, weekly and daily agendas, assignments and activities, evaluation criteria, and suggested reading list. Spring – Summer 2010.

3. **Preparation of Instructional Materials**
   a) **Textbooks**
      1. Designed and developed the *Instructor's Guide* for an instructional technology textbook (see B.1.e.1)--used to support introductory coursework in Educational Technology (EDCI 260, EDCI 560). June-November 1995
      2. Designed and developed an electronic textbook, *Computers in the classroom: An on-line textbook*, to be used with SuccessMaker courseware published by Computer Curriculum Corporation (see B.1.e.2). March – August 1996
      3. Completely revised and updated a well-known research text, *Practical Research: Planning and Design*, to be used in introductory graduate educational research courses (see B.1.e.4). January – August 1996
      4. Edited and authored specific chapters in *The ID CaseBook* (see B.1.e.5 - 8)--used to support coursework in EDCI 672 (Advanced Instructional Design) and EDCI 591N (Issues and Methods in Needs Assessment). June 1996 - August 1998

5. Developed and edited the *Instructors' Guide* for the *ID CaseBook* (see B.1.e.9) to provide pedagogical support to instructional design educators who are beginning to use the case-approach in teaching instructional design. January 1998 – August 1998

6. Designed and developed the second edition of the *Instructor's Guide* for an instructional technology textbook (see B.1.d.12)—used to support introductory coursework in Educational Technology (EDCI 270). January - March 1999

7. Developed and co-authored *Education on the Internet. The WorldWide Classroom: Access to people, resources, and curricular connections*, a practical handbook that assists pre- and inservice teachers using the Internet (see B.1.e.11). Used to support introductory coursework in Educational Technology (EDCI 270, EDCI 271). January - May 1999

8. Completed the 2nd edition of *The ID CaseBook: Case studies in instructional design* (see B.1.e.14, 15). Included 36 case studies (20 new) by more than 50 authors. September 2000 – December 2001

9. Completed the 2nd edition of the *Instructor's Guide* for the *ID CaseBook*, January – July 2002

10. Developed the 2nd edition of *Education on the Internet. The WorldWide Classroom: Access to people, resources, and curricular connections*, a practical handbook that assists pre- and inservice teachers using the Internet. Used to support introductory coursework in Educational Technology (EDCI 270, EDCI 271). May – August 2002 (see 4.a.7 above)

11. Co-developed, with Kathy Cennamo, the Instructor's Guide for *Real World Instructional Design* by Cennamo & Kalk (2005). Belmont, CA: Thomson Wadsworth. Available online: http://education.wadsworth.com/realworldID (see 1.e.17). June 2004

12. Completed development of the 3rd edition of the *ID CaseBook: Case studies in instructional design* (see 1.e.19). Includes 32 (9 new) case studies by more than 50 authors. September 2004 - December 2005. Release date: August 2006.

13. Completed development of the 3rd edition of the *Instructor's Guide* for the ID CaseBook. December 2005 - June 2006.

14. Completed 1st edition of a technology integration textbook, based on ISTE/NCATE standards. May 2006 – Dec 2008. Text was published by Wadsworth in early 2009 and is titled "*Technology Integration for Meaningful Classroom Use: A Standards-based Approach.*"

15. Completed development of the 4th edition of the *ID CaseBook: Case studies in instructional design* (2014 publication date). Solicited proposals, reviewed 20 submitted proposals and narrowed the accepted proposals down to 10; shepherded these through the development process; submitted all materials to Pearson in August 2012. May 2011 – August 2012.

16. Completed revision of "*Technology Integration for Meaningful Classroom Use: A Standards-based Approach.*" (2014, publication date). Wadsworth. May 2011-August 2012. Now available for purchase.

17. Revised and updated the 4th edition of the Instructor's Guide for the ID Casebook. August 2012 – May 2013

b) **Course Packets**

1. Developed a new course packet of readings for EDPS 533 to reflect a variety of approaches to, and methods for, conducting educational research including quantitative and qualitative methods. Summer 1996

2. Developed a new course packet of readings for EDCI 673 to emphasize the use of a variety of research methods in the field of Educational Technology, with a special emphasis on technology integration. Fall 1997; updated Fall 2000; Spring 2003, 2005, 2006, 2007, 2009

3. Developed a new course packet of readings for EDCI 591N to emphasize current approaches to needs assessment in training organizations. Spring 1998

4. Developed a new course packet of readings for EDCI 591E to introduce students to the field of Educational Technology. Fall 2002, Fall 2006

c) **Computer-based Instructional Materials**

1. Completed development of an instructional CD-ROM that is being used to support Ed Tech's introductory courses (EDCI 270, EDCI 560); EDCI 564, *Integration and Management of Computers in Education*; as well as EDCI 271, *Classroom Applications of Educational Technology*. This CD-ROM features 6 exemplary technology-using teachers from across the state of Indiana and includes examples of teachers' classroom practices as well as the pedagogical beliefs that support their practice (Summer 1998 – Summer 2001).

4. **Experimentation in Teaching Methods and Techniques**

a) Designed and conducted an online course (Instructional Strategies) to master's degree students at Boise State University. Incorporated a variety of small group activities, case studies, and peer-teaching to stimulate discussion and maintain student interest. Fall 1996

b) Conducted a hands-on research course based on an apprenticeship-mentoring model. Worked collaboratively with students in the course to establish course goals, identify a researchable question from the literature on technology integration, design the study using case-study methodology, conduct the study (make observations, interview participants), analyze and interpret data, and report the results. Fall 1997, 1998, 2000, Spring 2002, 2003

c) Co-conducted a 2-way video conferencing course for graduate students enrolled in Purdue's Northwest Doctoral Cohort Program, and located on the Purdue Calumet campus. A learning community was created among the 20 students on the Calumet campus and the 20 students on West Lafayette's campus through the use of listserv discussions, cross-site work groups, debates, demonstrations, and whole class discussions. Spring 1997

d) Created and conducted a case-based instructional design course that was designed to initiate students into professional practice. Relied completely on authentic case studies to present content, frame discussions, and mentor students. Established work teams to model on-the-job expectations and interactions. Incorporated peer evaluations, instructor and student think-alouds, simulations, and debates to challenge and stimulate authentic student learning. Spring 1998, 1999

e) Redesigned our advanced instructional design course for on-line delivery to master's degree students at Boise State University. Incorporated a case-based approach, team

work, peer evaluations, and student presentations to meet diverse student needs and maintain interest. Fall 1998

f) Redesigned our technology integration course (EDCI 564) to include on-site field experiences in local schools. Incorporated web-based experiences, immersion in authentic classroom technology projects, practitioner panel discussions, and guest appearances from SOE methods teachers to create links between meaningful technology use and school-based curricula. Fall 1998 (taught Spring 1999)

g) Revised our advanced instructional design course to simulate an Instructional Design Apprenticeship shop. Students from EDCI 672 participated in an online community of practice (via WebCT) that linked them with students from a similar program at Northeastern Illinois University. The course incorporated online discussions of ID case studies, as well as opportunities for students to give and receive feedback in a supportive environment. Spring 2000, 2002; Fall, 2002

h) Developed an online version of EDCI 564, *Integration and Management of Computers in Education*, specifically designed to meet the professional development needs of inservice teachers. Development activities included the creation of a course framework, syllabus, weekly online activities and assignments, as well as the creation of a WebCT interface and an instructional CD-ROM, *VisionQuest*, to be used in the course. Spring 2001 - Fall 2001

i) Revised our advanced instructional design course, EDCI 672, to connect students, from Purdue with students enrolled in an online masters degree program at Boise State University. Used Lotus Notes for online case discussions and video conferencing for face-to-face discussions. Fall 2003

j) Worked with an instructional team (Krista Simons and 3 graduate students) to convert EDCI 271, *Classroom Applications of Educational Technology,* into a problem-based learning experience. Assisted with development of the syllabus, course activities, and assessment measures. Fall 2004, 2005

k) Revised EDCI 672 (Advanced ID) to include an international component by collaborating with Dr. Soner Yildirim at Middle East Technical University in Turkey. Engaged in joint discussions, both synchronously (using Polycom) and asynchronously (using Blackboard). Took two students to Turkey as part of a capstone experience. Fall, 2007, 2008

5. **Other Evidence of Teaching Excellence**

a) In addition to teaching within the structure of the traditional classroom setting, Ertmer conducts workshops, seminars, and inservice training on issues related to student-centered instruction and technology integration for fellow university instructors as well as local teachers. She also has made invited presentations for undergraduate student organizations and for students enrolled in undergraduate education courses. See section B.6 for examples. In addition, Ertmer regularly attends conferences and workshops to continually hone her own teaching skills.

b) Developed training materials/workshops for the following organizations:

- DowBrands, Inc., Indianapolis, IN
- Center for Instructional Services, Purdue University, West Lafayette, IN
- Lincoln Life Insurance, Fort Wayne, IN

- American Institute for Managing Diversity (AIMD), Atlanta, GA
- Metropolitan School District of Lawrence Township, Indianapolis, IN
- University of New Hampshire, Faculty Instructional Technology Summer Institute
- University of Southern Queensland, Academic Staff Development Program, Australia
- Iowa State University, Center for Excellence in Teaching and Learning, Ames, IA
- Nong Lam University, Faculty of Agriculture and Forestry, Ho Chi Minh City, Vietnam
- School of Pharmacy, Purdue University, West Lafayette, IN
- John Scottus School, in conjunction with the Bridge to College Project (Suas and Trinity College), Dulbin, Ireland
- Attica Junior/Senior High School, Attica, IN
- Universidad Nacionale de Colombia (Student-centered and Authentic Learning Environments), Bogota, Colombia.
- College of Technology, Purdue University (Getting Started with PBL), West Lafayette IN

B. CREATIVE ENDEAVORS, RESEARCH, SCHOLARSHIP

My scholarship focuses on the impact that student-centered instructional approaches/strategies have on both the processes and products of learning. This focus is translated into two specific interests that are integrated within my program of research. One interest revolves around issues of teaching—identifying effective instructional strategies and approaches (case-based instruction, technology integration) that foster student motivation and learning. The second interest revolves around issues of learning related to facilitating students' development and use of self-regulation skills (i.e., skills that enable learners to monitor and adjust their own learning strategies to meet changing situational needs). Activities that support this focus include research on the impact of case-based instruction on higher-order thinking skills, the effectiveness of a student-centered, problem-based learning approach to technology integration, and strategies for facilitating higher-order thinking and self-regulated learning in online learning environments. Additionally, these ideas are incorporated within my teaching, design, service, and engagement activities.

1. **Publications**

    a) National and International Refereed Publications

    1. Ertmer, P. A.[*], & Newby, T. J.[*] (1993). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly, 6*(4), 50-72.
    2. Ertmer, P. A.[*], Evenbeck, E., Cennamo, K. S., & Lehman, J. D. (1994). Enhancing self-efficacy for computer technologies through the use of positive classroom experiences. *Educational Technology Research and Development, 42*(3), 45-62.
    3. Ertmer, P. A.[*], & Cennamo, K. C.[*] (1995). Teaching instructional design: An apprenticeship approach. *Performance Improvement Quarterly, 8(*4), 43-58.

4. Newby, T. J.*, Ertmer, P. A., & Stepich, D. A. (1995). Instructional analogies and the learning of concepts. *Educational Technology Research and Development, 43*(1), 5-18.

5. Ertmer, P. A.*, & Newby, T. J.* (1996). The expert learner: Strategic, self-regulated, and reflective. *Instructional Science, 24*(1), 1-24.

6. Ertmer, P. A.*, Newby, T. J., & MacDougall, M. (1996). Students' approaches to learning from case-based instruction: The role of reflective self-regulation. *American Educational Research Journal, 33*, 719-752.

7. Ertmer, P. A.*, & Dillon, D. R. (1998). "Shooting in the dark" vs. "Breaking it down": Understanding students' approaches to case-based instruction. *International Journal of Qualitative Studies in Education, 11*, 605-622.

8. Ertmer, D. J.*, & Ertmer, P. A. (1998). Constructivist strategies in phonological intervention: Facilitating self-regulation for carryover. *Journal of Language, Speech, and Hearing Services in the Schools, 29*, 67-75.

9. Ertmer, P. A.*, Addison, P., Lane, M., Ross, E., & Woods, D. (1999). Examining teachers' beliefs about the role of technology in the elementary classroom. *Journal of Research on Computing in Education, 32*(1/2), 54-72.

10. Ertmer, P. A.*, & Hruskocy, C. (1999). Impacts of a university-elementary school partnership designed to support technology integration. *Educational Technology Research and Development, 47*(1), 81-96.

11. Schunk, D. H.*, & Ertmer, P. A.* (1999). Self-regulatory processes during computer skill acquisition: Goals and self-evaluative influences. *Journal of Educational Psychology, 91*, 251-260.

12. Ertmer, P. A. (1999). Addressing first- and second-order barriers to change: Strategies for technology integration. *Educational Technology Research and Development, 47*(4), 47-61.

13. Hruskocy, C.*, Cennamo, K. S.*, Ertmer, P. A.*, & Johnson, T. (2000). Creating a community of technology users: Students become technology experts for teachers and peers. *Journal of Technology in Teacher Education, 8*(1), 69-84.

14. Ertmer, P. A.*, Gopalakrishnan, S., & Ross, E. M. (2001). Technology-using teachers: Comparing perceptions of exemplary technology use to best practice. *Journal of Research on Technology in Education, 33*(5). Available online at http://www.iste.org/Content/NavigationMenu/Publications/JRTE/Issues/Volume_331/Number_5_Summer_2001/jrce-33-5-ertmer.pdf

15. Stepich, D. A.*, Ertmer, P. A.*, & Lane, M. M. (2001). Problem-solving in a case-based course: Strategies for facilitating coached expertise. *Educational Technology Research and Development, 49*(3), 53-69.

16. Snoeyink, R.*, & Ertmer, P. A. (2001-2002). Thrust into technology: How veteran teachers respond. *Journal of Educational Technology Systems, 30*(1), 85-111.

17. Ertmer, P. A.*, & Johnson, T. (2002). One pixel short of a frame: Lessons learned form a large-scale (underfunded) multimedia development project. *AACE Journal* (formerly *Educational Technology Review*), *10*(2), 3-27 [Online]. Available: http://dl.aace.org/10552

18. Albion, P. *, & Ertmer, P. A*. (2002). Beyond the foundations: The role of vision and belief in teachers' preparation for integration of technology. *TechTrends, 46*(5), 34-38.

19. Ertmer, P. A. *, Bai, H., Dong, C., Khalil, M., Park, S. H., Wang, L. (2002). Online professional development: Building administrators' capacity for technology leadership. *Journal of Computing in Teacher Education, 19*(1), 5-11.

20. Ertmer, P. A.*, & Stepich, D.* (2002). Initiating and maintaining meaningful case discussions: Maximizing the potential of case-based instruction. *Electronic Journal of Excellence in College Teaching, 13*(2/3), 5-18.

21. Ertmer, P. A.*, Conklin, D., Lewandowski, J., Osika, E., Selo, M., & Wignall, E. (2003). Increasing preservice teachers' capacity for technology integration through use of electronic models. *Teacher Education Quarterly, 30*(1), 95-112.

22. Ertmer, P. A. (2003). Transforming teacher education: Visions and strategies. *Educational Technology Research and Development, 51*(1), 124-128.

23. Diwakar, V., Ertmer, P. A., & Nour, A. (2003). Developing interactive course web sites for distance education and characteristics of students enrolled in distance learning courses. *Journal of Veterinary Medical Education, 30*, 351-357.

24. Wang, L.*, Ertmer, P. A.*, & Newby, T. J. (2004). Increasing preservice teachers' self-efficacy beliefs for technology integration. *Journal of Research on Technology in Education, 36*, 231-250. Selected for inclusion in a special volume—*Considerations on Technology and Teachers: The Best of JRTE*. See 2.e.23.

25. Ertmer, P. A.*, & Newby, T. J.* (2004). The expert learner: Strategic, self-regulated, and reflective. *Distance Education Journal, 1*, 16-23. (Note: Chinese translation of 1.5.a)

26. Ertmer, P. A. *, Richardson, J.,* Cramer, J., Hanson, L., Huang, W., Lee, Y., O'Connor, D., Ulmer, J., & Um, E. J. (2005). Professional development coaches: Perceptions of critical characteristics. *Journal of School Leadership, 15*(1), 52-75.

27. Ertmer, P. A. (2005). Teacher pedagogical beliefs: The final frontier in our quest for technology integration? *Educational Technology Research and Development, 53*(4), 25-39.

28. Newby, T. J., Ertmer, P. A., & Stepich, D. A. (2005). Instructional analogies and the learning of concepts. In F. Lee & H. H. Yang (Eds.), 计算机教育应用研究: 方法与案例 [*Educational technology research: Methodology and case analysis*] (pp. 152-172). Beijing, China: Beijing Jiaotong University Press. (Note: Chinese translation of 1.a.4)

29. Ertmer, P. A.*, & Simons, K. D.* (2006). Jumping the implementation hurdle: Supporting PBL in K-12 classrooms. *The Interdisciplinary Journal of Problem-Based Learning*, 1(1) [Inaugural Issue], 41-56.

30. O'Connor, D.*, & Ertmer, P. A.* (2006). Today's coaches prepare tomorrow's mentors: Sustaining results of professional development. *Academy of Educational Leadership Journal*, 10(2), 97-112.

31. Ertmer, P. A.*, & Simons, K. D.* (2006). Scaffolding teachers' efforts to implement problem-based learning. *International Journal of Learning*, *12*(4), 318-327.

32. Simons, K. D.*, & Ertmer, P. A.* (2006). Scaffolding disciplined inquiry in problem-based environments. *International Journal of Learning*, *12*(6), 297-306.

33. Lee, Y.*, & Ertmer, P. A.* (2006). Examining the impact of small group discussions and question prompts on vicarious learning outcomes. *Journal of Research on Technology in Education*, *39*(1), 66-80.

34. Ertmer, P. A.*, Ottenbreit-Leftwich, A.*, & York, C. S.* (2006-2007). Exemplary technology-using teachers: Perceptions of factors influencing success. *Journal of Computing in Teacher Education*, *23*(2), 55-61.

35. Belland, B. R.*, Ertmer, P. A., & Simons, K. D. (2006). Perceptions of the value of problem-based learning among students with special needs and their teachers. *Interdisciplinary Journal of Problem-based Learning, 1*(2), 1-18.

36. Ertmer, P. A.*, Richardson, J. C.*, Belland, B., Camin, D., Connolly, P., Coulthard, G., Lei, K., & Mong, C. (2007). Using peer feedback to enhance the quality of student online postings: An exploratory study. *Journal of Computer-Mediated Communication, 12*(2). Available online: http://jcmc.indiana.edu/vol12/issue2/ertmer.html

37. Park, S. H.*, Cramer, J., & Ertmer, P. A.* (2007). Implementation of a technology-enhanced problem-based learning curriculum: Supporting teachers' effort. *Educational Technology International, 8*(1), 91-100.

38. Ertmer, P. A.*, & Nour, A.* (2007). Teaching basic medical sciences at a distance: Strategies for effective teaching and learning in Internet-based courses. *Journal of Veterinary Medical Education, 34*, 316-324.

39. Park, S. H.*, & Ertmer, P. A. (2008). Impact of problem-based learning (PBL) on teachers' beliefs regarding technology use. *Journal of Research on Technology in Education*, *40*(2), 247-267. Selected for inclusion in a special volume—*Considerations on Technology and Teachers: The Best of JRTE*. See 2.e.24

40. Bai, H.*, & Ertmer, P. A. (2008). Teacher educators' beliefs and technology uses as predictors of preservice teachers' beliefs and technology attitudes. *Journal of Technology and Teacher Education*, *16*(1), 93-112.

41. Ertmer, P. A.*, Stepich, D. A.*, York, C. S., Stickman, A., Wu, X., Zurek, S., & Goktas, Y. (2008). How instructional design experts use knowledge and experience to solve ill-structured problems. *Performance Improvement Quarterly*, *21*(1), 17-42.

42. Richardson, J.*, Ertmer, P. A.*, Aagard, H., Ottenbreit-Leftwich, A., Yang, D., & Mack, N. (2008). Factors influencing teachers' implementation of digital age literacy skills and strategies. *Teacher Education and Practice*, 20(3), 239-262.

43. Park, S. H.*, & Ertmer, P. A.* (2008). Examining barriers in technology-enhanced problem-based learning: Using a performance support systems approach. *British Journal of Educational Technology*, *39*, 631-643.

44. Ertmer, P. A.*, Glazewski, K. D.*, Jones, D., Ottenbreit-Leftwich, A., Goktas, Y., Collins, K., & Kocaman, A. (2009). Facilitating technology-enhanced PBL in the

middle school classroom: An examination of how and why teachers adapt. *Journal of Interactive Learning Research*, *20*(1), 35-54.

45. Belland, B. R.[*], Glazewski, K. D., & Ertmer, P. A. (2009). Inclusion and problem-based learning: Roles of students in a mixed-ability group. *Research in Middle Level Education Online*, *32*(9). Retrieved April 28, 2009, from http://www.nmsa.org/Publications/RMLEOnline/Articles/Vol32No9/tabid/1948/Default.aspx

46. Belland, B. R.[*], French, B.[*] & Ertmer, P. A.[*] (2009). Validity and problem-based learning research: A review of instruments used to assess intended learning outcomes. *Interdisciplinary Journal of Problem-based Learning*, *3*(1), 59-89.

47. Ertmer, P. A.[*], Stepich, D. A.[*], Flanagan, S., Kocaman, A., Reiner, C., Reyes, L., Santone, A., & Ushigusa, S. (2009). Impact of guidance on the problem-solving efforts of instructional design novices. *Performance Improvement Quarterly*, *21*(4), 117-132.

48. Stepich, D. A.[*], & Ertmer, P. A.[*] (2010). "Teaching" instructional design expertise: Strategies to support students' problem-finding skills. *Technology, Instruction, Cognition, and Learning*, *7*, 147-170.

49. Ertmer, P. A.[*], & Ottenbreit-Leftwich, A. T.[*] (2010). Teacher technology change: How knowledge, beliefs, and culture intersect. *Journal of Research on Technology in Education, 42*, 255-284.

50. Ertmer, P. A.[*], Richardson, J. C.[*], Lehman, J. D., Newby, T. J., Cheng, C., Mong, C., & Sadaf, A. (2010). Peer feedback in a large undergraduate blended course: Perceptions of value and learning. *Journal of Educational Computing Research*, *43*(1), 67-88.

51. Glazewski, K. D.[*], & Ertmer, P. A.[*] (2010). Fostering socioscientific reasoning in problem-based learning: Examining teacher practice. *International Journal of Learning, 16*(12), 269-282.

52. Ertmer, P. A.[*], Strobel, J., Cheng, X., Chen, X., Kim, H., Olesova, L., Sadaf, A., & Tomory, A. (2010). Expressions of critical thinking in role-playing simulations: Comparisons across roles. *Journal of Computing in Higher Education, 22*(2), 73-94. DOI 10.1007/s12528-010-9030-7

53. Ottenbreit-Leftwich, A., Glazewski, K. D., Newby, T. J., & Ertmer, P. A. (2010). Teacher value beliefs associated with using technology: Addressing professional and student needs. *Computers and Education*, *55*, 1321-1335.

54. Newby, T. J., Ertmer, P. A., & Kenney, E. (2010). The INSITE project: Engaging students in international team collaborations to create a Web 2.0 repository. *International Journal of Designs for Learning, 1(1), 1-18.* Available online: http://scholarworks.iu.edu/journals/index.php/ijdl/index

55. Ertmer, P. A., Newby, T. J., Liu, W., Tomory, A., Yu, J. H., & Lee, Y. M. (2011). Students' confidence and perceived value for participating in cross-cultural wiki-based collaborations. *Educational Technology Research and Development, 59*, 213-228. DOI: 10.1007/s11423-011-9187-4

56. York, C. S., & Ertmer, P. A. (2011). Towards an understanding of instructional design heuristics: An exploratory Delphi study. *Educational Technology Research and Development, 59*, 841-863. DOI: 10.1007/s11423-011-9209-2

57. Ertmer, P. A., Sadaf, A., & Ertmer, D. J. (2011). Designing effective question prompts to facilitate critical thinking in online discussions. *International Journal of Design Principles and Practices*, *5*(4), 1-28.

58. Ertmer, P. A., Sadaf, A., & Ertmer, D. J. (2011). Student-content interactions in online courses: The role of question prompts in facilitating higher-level engagement with course content. *Journal of Computing in Higher Education, 23*, 157-186. DOI: 10.1007/s12528-011-9047-6

59. Ertmer, P. A., Newby, T. J., Yu, J. H., Liu, W., Tomory, A., Lee, Y. M., Sendurur, E., & Sendurur, P. (2011). Facilitating students' global perspectives: Collaborating with international partners using Web 2.0 tools. *Internet and Higher Education*. DOI: 10.1016/j.iheduc.2011.05.005

60. Ertmer, P. A., Ottenbreit-Leftwich, A., Sadik, O., Sendurur, E., & Sendurur, P. (2012). Teacher beliefs and technology integration practices: A critical relationship. *Computers & Education*, 59, 423-435. DOI: 10.1016/j.compedu.2012.02.001

61. Sadaf, A., Newby, T. J., & Ertmer, P. A. (2012). Exploring pre-service teachers' beliefs about using Web 2.0 technologies. *Computers & Education, 59*, 937-945. DOI: 10.1016/j.compedu.2012.04.001

62. Sadaf, A., Newby, T. J., & Ertmer, P. A. (2012-2013). Investigating factors that predict pre-service teachers' intentions to use Web 2.0 technologies: Using decomposed theory of planned behavior. *Journal of Research on Technology in Education*, *45*, 171-196.

63. Ertmer, P. A., & Ottenbreit-Leftwich, A. (2013). Removing obstacles to the pedagogical changes required by Jonassen's vision of authentic technology-enabled learning. *Computers & Education*, *64*, 175-182. DOI: 10.1016/j.compedu.2012.10.008

64. Ertmer, P. A. (2013). PBL scholarship: Building on the educational vision of Howard Barrows. *Interdisciplinary Journal of Problem-based Learning*, *7*(1). Available online: http://docs.lib.purdue.edu/ijpbl/vol7/iss1/11/

65. Ertmer, P. A., & Newby, T. J. (2013). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly, 26*(2), 43-64. (NOTE: this is a reprinted article, with a response and update – see #66 below. The original article was published in 1993 – see #1).

66. Ertmer, P. A., & Newby, T. J. (2013). Behaviorism, cognitivism, and constructivism: Connecting yesterday's theories to today's contexts. *Performance Improvement Quarterly*, *26*(2), 65-71.

67. Brantley-Dias, L., & Ertmer, P. A. (2013). Goldilocks and TPCK: Is the construct "just right?" *Journal of Research on Technology in Education*, *46*(2), 103-128. [Lead article in this Special Issue on TPACK]

68. Ertmer, P. A., Schlosser, S., Clase, K., & Adedokun, O. (2014). The grand challenge: Helping teachers learn/teach cutting edge science via a PBL approach.

Interdisciplinary Journal of Problem-based Learning, 8(1). Available: http://dx.doi.org/10.7771/1541-5015.1407

69. Ertmer, P. A., & Glazewski, K. D. (2014). Developing a research agenda: Contributing new knowledge via intent and focus. *Journal of Computing in Higher Education, 26*(1), 54-68. DOI 10.1007/s12528-013-9076-4

70. Ertmer, P. A., & Koehler, A. A. (2014). Online case-based discussions: Examining coverage of the afforded problem space. *Educational Technology Research and Development*, 62, 617-636. DOI 10.1007/s11423-014-9350-9

71. Rico, R., & Ertmer, P. A. (2015). Examining the role of the instructor in problem-centered instruction. *Tech Trends*, *59*(4), 96-103.

72. Ertmer, P. A., & Koehler, A. A. (2015). Facilitated vs. non-facilitated online case discussions: Comparing differences in problem space coverage. *Journal of Computing in Higher Education, 27,* 69-93. DOI 10.1007/s12528-015-9094-5

73. Loizzo, J., Borron, A., Gee, A., & Ertmer, P. A. (2016). Teaching convergence in 21st century undergraduate agricultural communication: A pilot study of backpack multimedia kits in a blended, project-based learning course. *Journal of Applied Communications*, 100(2), 100-104.

74. Sadaf, A., Newby, T. J., & Ertmer, P. A. (2015). An investigation of the factors that influence preservice teachers' intentions and integration of Web 2.0 tools. *Educational Technology Research and Development*. DOI 10.1007/s11423-015-9410-9

75. Kilinc, A., Ertmer, P. A., Bahcivan, E., Demirbag, M., Sonmez, A., & Ozel, R. (2016). Factors influencing Turkish preservice teachers' intentions to use educational technologies and the mediating role of risk perspections. *Journal of Technology and Teacher Education, 24*(1), 37-62.

76. Tondeur, J., van Braak, J., Ertmer, P. A., & Ottenbreit-Leftwich, A. (2016). Understanding the relationship between teachers' pedagogical beliefs and technology use in education: A systematic review of qualitative evidence. *Educational Technology Research and Development*. DOI: 10.1007/s11423-016-9481-2

77. Watson, S. L., Loizzo, J., Watson, W., Mueller, C., Lim, J., & Ertmer, P. A. (2016). Instructional design, facilitation, and perceived learning outcomes: An exploratory case study of a human trafficking MOOC for attitudinal change. *Educational Technology Research and Development*. DOI 10.1007/s11423-016-9457-2

78. Loizzo, J., & Ertmer, P. A. (2016). MOOCocracy: The learning culture of massive open online courses. *Educational Technology Research and Development*, *64*. DOI 10.1007/s11423-016-9444-7

79. York, C. S., & Ertmer, P. A. (2016). Examining instructional design principles applied by experience designers in practice. *Performance Improvement Quarterly*, *29*(2), 169-192. DOI: 10.1002/piq.21220

80. Loizzo, J., Ertmer, P. A., Watson, W. R., & Watson, S. L. (2017). Adults as self-directed and determined to set and achieve personal learning goals in MOOCs: Learners' perceptions of MOOC motivation, success, and completion. *Online Learning, 21*(2), doi: 10.24059/olj.v21i2.889

81. Koehler, A. A., Newby, T. J., & Ertmer, P. A. (2017). Examining the role of Web 2.0 tools in supporting problem solving during case-based instruction. *Journal of Research on Technology in Education, 49*(3-4), 182-197. DOI: 10.1080/15391523.2017.1338167

82. Watson, S. L., Koehler, A. A., Ertmer, P. A., Rico, R., & Kim, W. (2017). An expert facilitator's use of social congruence, cognitive congruence, and expertise in a case-based instructional design course. *Interdisciplinary Journal of Problem-based Learning, 12*(1). Available at: https://doi.org/10.7771/1541-5015.1633

83. Ertmer, P. A., & Koehler, A. A. (2018). Facilitation strategies and problem space coverage: Comparing face-to-face and online case-based discussions. *Educational Technology Research and Development, 66*, 639-670. https://doi.org/10.1007/s11423-017-9563-9

84. Koehler, A. A., Ertmer, P. A., & Newby, T. J. (2018). Developing preservice teachers' instructional design skills through case-based instruction: Examining the impact of discussion format. *Journal of Teacher Education*. DOI: 10.1177/0022487118755701

85. Ottenbreit-Leftwich, A., Liao, J. Y-C., Sadik, O., & Ertmer, P. A. (2018). Evolution of teachers' technology integration knowledge, beliefs, and practices: How can we support beginning teachers' use of technology. *Journal of Research on Technology in Education, 50*, 282-304. https://doi.org/10.1080/15391523.2018.1487350

86. Glazewski, K. D., & Ertmer, P. A. (2020). Fostering complex problem solving for diverse learners: Engaging an ethos of intentionality toward equitable access. *Educational Technology Research and Development, (68)*, 679-702. https://doi.org/10.1007/s11423-020-09762-9

87. Koehler, A. A., Ertmer, P. A., & Newby, T. J. (2021). Discussion facilitation strategies and design skill development: Examining the relationship. *Interdisciplinary Journal of Problem-based Learning, 15*(1). https://doi.org/10.14434/ijpbl.v15i1.28749

b) ERIC Documents and Conference Proceedings

1. Ertmer, P. A.[*], Newby, T. J., & MacDougall, M. (1995). Reflective self-regulation as a facilitative factor in learning from case-based instruction. *1995 Conference Proceedings of Selected Research and Development Paper Presentations*. Anaheim, CA: Research and Theory Division, AECT. (ERIC Reproduction Service No: 383297)

2. Ertmer, P. A.[*], Newby, T. J., & MacDougall, M. (1996). Students' responses to case-based instruction: The role of perceived value. *1996 Conference Proceedings of Selected Research and Development Paper Presentations*. Indianapolis, IN: Research and Theory Division, AECT.

3. Ertmer, P. A.[*], & Newby, T. J. (1996). *Students' approaches to case-based instruction: The role of perceived value, learning focus, and reflective self-regulation*. (ERIC Reproduction Service No: 398267)

4. Ertmer, P. A., Provo, J., Moreno, J., Butcher, C., Leuck, V., MacDougall, M., & Newby, T. J. (1996). *An apprenticeship approach to inducting novices into research practice*. (ERIC Reproduction Service No: 400272)

5. Ertmer, P. A.*, & Schunk, D. H.* (1997). *Self-regulation during computer skills learning: the influence of goals and self-evaluation*. (ERIC Reproduction Service No: 408023)

6. Hruskocy, C.*, Cennamo, K. S.*, Ertmer, P. A.*, & Johnson, T. (1998). *Students as technology experts: A "Bottom-Up" approach to teacher technology development*. (ERIC Reproduction Service No: 411237)

7. Ertmer, P. A. *, Hruskocy, C. *, Johnson, T., & Lai, F-Q. (1998). START (Student trainers as resource technologists): An alternative approach to technology integration. *1998 Conference Proceedings of Selected Research and Development Paper Presentations*. St. Louis, MO: Research and Theory Division, AECT.

8. Ertmer, P. A.*, Addison, P., Lane, M., Ross, E., & Woods, D. (1998). *Teachers' beliefs and classroom practice regarding integrated technology use*. Conference Proceedings of Syllabus 98, Sonoma State University, CA.

9. Ertmer, P.A.*, & Stepich, D. A.* (1999). *Case-based instruction in post-secondary education: Developing students' problem-solving expertise*. (ERIC Reproduction Service No: ED435375)

10. Ertmer, P. A.*, Gopalakrishnan, S., & Ross, E. (2000, February). VisionQuest: Helping our future teachers envision and achieve technology integration. *SITE (Society for Information Technology and Teacher Education) 2000 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

11. Ertmer, P. A.*, Ross, E., & Gopalakrishnan, S. (2000, February). Technology-using teachers: How powerful visions and student-centered beliefs fuel exemplary practice. *SITE* (Society for Information Technology and Teacher Education) *2000 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

12. Ertmer, P. A.*, Gopalakrishnan, S., & Ross, E. (2000). *Technology-using teachers: Comparing perceptions of exemplary technology use to best practice*. (ERIC Reproduction Service No: 446 037)

13. Stepich, D. A.*, Ertmer, P. A.*, & Lane, M. M. (2000). Problem-solving in a case-based course: Strategies for facilitating coached expertise. *2000 Conference Proceedings of Selected Research and Development Paper Presentations*. Denver, CO: Research and Theory Division, AECT.

14. Ertmer, P. A. (2000). Responsive instructional design: Scaffolding the adoption and change process. *2000 Conference Proceedings of Selected Research and Development Paper Presentations*. Denver, CO: Research and Theory Division, AECT.

15. Ertmer, P. A.*, Johnson, T. J., & Lane, M. M. (2001, March). VisionQuest©: Teacher development model for scaffolding technology integration. *SITE (Society for Information Technology and Teacher Education) 2001 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

16. Johnson, T. J.*, Ertmer, P. A*., & Lane, M. M. (2001, March). VisionQuest©: Creating visions and strategies for technology integration. *SITE (Society for*

Information Technology and Teacher Education) 2001 Conference Proceedings. Charlottesville, VA: Association for the Advancement of Computing in Education.

17. Lehman, J. D.*, Ertmer, P. A., Keck, K., & Steele, K. (2001, March). In-service teacher development for fostering problem-based integration of technology. *SITE (Society for Information Technology and Teacher Education) 2001 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

18. Ertmer, P. A., Conklin, D., Lewandowski, J. (2001, November). Increasing preservice teachers' capacity for technology integration through use of electronic models. *2001 Conference Proceedings of Selected Research and Development Paper Presentations*. Atlanta, GA: Research and Theory Division, AECT.

19. Ross, E. M., Ertmer, P. A., & Johnson, T. (2001, November). Technology integration and innovative teaching practices: A staff development model. *2001 Conference Proceedings of Selected Research and Development Paper Presentations*. Atlanta, GA: Research and Theory Division, AECT.

20. Ertmer, P. A., Bai. H., Dong, C., Khalil, M., Park, S., & Wang, L. (2002, March). Technology Leadership: Shaping administrators' knowledge and skills through an online professional development course. *SITE (Society for Information Technology and Teacher Education) 2002 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

21. Ertmer, P. A., & Lewandowski, J. (2002, March). Using electronic models to increase preservice teachers' ideas and confidence for technology integration. *SITE (Society for Information Technology and Teacher Education) 2002 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

22. Ross, E. M., Johnson, T., & Ertmer, P. A., (2002, November). Technology integration and innovative teaching through collaboration, reflection, and modeling: Research results from implementation of a staff development model. *2002 Conference Proceedings of Selected Research and Development Paper Presentations*. Dallas, TX: AECT.

23. Ertmer, P. A., Lehman, J. D., Park, S. H., Cramer, J., Grove, K. (2003, March). Barriers to teachers' adoption and use of technology-supported learner-centered pedagogies. *SITE* (Society for Information Technology and Teacher Education) *2003 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

24. Ertmer, P. A. (2003, March). A critical review of five PT3 projects: Early efforts and initial impacts. *SITE* (Society for Information Technology and Teacher Education) *2003 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

25. Wang, L., & Ertmer, P. A. (2003, April). *Impact of vicarious learning experiences and goal setting on preservice teachers' self-efficacy for technology integration: A pilot study*. (ERIC Reproduction Service No: ED476467)

26. Ertmer, P. A., Lehman, J. D., Park, S. H., Cramer, J., Grove, K. (2003, June). Adoption and use of technology-supported learner-centered pedagogies: Barriers to

teachers' implementation. *Ed Media 2003 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

27. Wang, L., & Ertmer, P. A. (2003, October). Vicarious learning experiences and goal setting: Impact on preservice teachers' self-efficacy for technology integration. *2003 Conference Proceedings of Selected Research and Development Paper Presentations*, Anaheim, CA: AECT.

28. Ghanma, M., Ertmer, P. A., Nour, A. (2003). *Interactivity in web-based instruction*. Keynote presentation to Timisoara Scientific Conference, Timisoara, Romania. Medicina Veternaria, 36, pp 1-10.

29. Diwakar, V., Ertmer, P. A., Ghanma, M., Florea, M., & Nour, A. (2003). *Developing interactive course websites for distance education and characteristics of students enrolled in distance learning courses*. Keynote presentation to Timisoara Scientific Conference, Timisoara, Romania. Medicina Veternaria, 36, pp 26-31.

30. Florea, M., Ertmer, P. A., & Nour, A. (2003). *Design and application of behavioral objectives in Internet-based distance education of Veterinary Medical Sciences*. Presentation to Timisoara Scientific Conference, Timisoara, Romania. Accepted for publication in Medicina Veternaria.

31. Ertmer, P. A., & Stepich, D. A. (2004, July). *Examining the relationship between higher-order learning and students' perceived sense of community in an online learning environment*. 2004 Proceedings of AusWeb04, the 10th Australian Worldwide Conference, Gold Coast, Queensland. Available online at: http://ausweb.scu.edu.au/aw04/papers/refereed/ertmer/paper.html

32. Albion, P. A., & Ertmer, P. A. (2004, July). *Online courses: Models and strategies for increasing interaction*. 2004 Proceedings of AusWeb04, the 10th Australian Worldwide Conference, Gold Coast, Queensland.

33. Bai, H., & Ertmer, P. A. (2004, October). Teacher educators' beliefs and technology uses in relation to preservice teachers' beliefs and technology attitudes. *2004 Conference Proceedings of Selected Research and Development Paper Presentations*, Chicago, IL: AECT.

34. Park, S. H., Cramer, J., & Ertmer, P. A. (2004, October). Implementation of a technology-enhanced problem-based learning curriculum: A year-long study of three teachers. *2004 Conference Proceedings of Selected Research and Development Paper Presentations*, Chicago, IL: AECT.

35. Bai, H.[*], & Ertmer, P. A. (2005, March). Teacher educators' beliefs and technology uses as predictors of students' beliefs and technology attitudes. *SITE* (Society for Information Technology and Teacher Education) *2005 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

36. Ertmer, P. A.[*], & Stepich, D. A.[*] (2005, March). Relationship between sense of community and learning in online learning environments. *SITE* (Society for Information Technology and Teacher Education) *2005 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

37. Park, S. H.[*], Ertmer, P. A.[*], & Simons, K. (2005, March). Problem-based learning and beliefs about technology: Examining the relationship. *SITE* (Society for

Information Technology and Teacher Education) *2005 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

38. Park, S. H.[*], Lee, E-H.[*], Blackman, J.[*], Belland, B., Ertmer, P. A., & Simons, K. (2005, March). Examining the barriers encountered when planning and implementing technology-enhanced PBL in the middle school classroom. *SITE* (Society for Information Technology and Teacher Education) *2005 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

39. Ertmer, P. A.[*], Richardson, J. C., Belland, B., Camin, D., Connolly, P., Coulthard G., Lei, K., & Mong, C. (2005, October). Impact and perceived value of peer feedback in online learning environments. *2005 Conference Proceedings of Selected Research and Development Paper Presentations*, Orlando, FL: AECT.

40. Park, S. H.[*], Lee, E-H.[*], Blackman, J.[*], Ertmer, P. A., Schaffer, S., Simons, K., & Belland, B. (2005, October). Examining barriers middle school teachers encounter in technology-enhanced problem-based learning. *2005 Conference Proceedings of Selected Research and Development Paper Presentations*, Orlando, FL: AECT.

41. Ertmer, P. A.[*], Ottenbreit-Leftwich, A.[*], & York, C. S.[*] (2005, October). Exemplary technology use: Teachers' perceptions of critical factors. *2005 Conference Proceedings of Selected Research and Development Paper Presentations*, Orlando, FL: AECT.

42. Lee, E-H[*], Simons, K. D.[*], & Ertmer, P. A. (2005, October). Experiences of a middle school English-as-a-Second-Language teacher with problem-based learning. 2005 Conference Proceedings *of Selected Research and Development Paper Presentations*, Orlando, FL: AECT.

43. Lee, Y.[*], & Ertmer, P. A.[*] (2006, March). Increasing the impact of vicarious learning experiences through the use of small group discussions and question prompts. *SITE* (Society for Information Technology and Teacher Education) *2006 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

44. Bai, H.[*], & Ertmer, P. A. (2006, October). How teacher educators' beliefs and technology uses relate to preservice teachers' beliefs and attitudes toward technology. *2006 Conference Proceedings of Selected Research and Development Paper Presentations*, Dallas, TX: AECT.

45. Lee, Y.[*], & Ertmer, P. A.[*] (2006, October). Increasing the impact of vicarious learning experiences through the use of group discussions and question prompts. *2006 Conference Proceedings of Selected Research and Development Paper Presentations*, Dallas, TX: AECT.

46. Ottenbreit-Leftwich, A.[*], Ertmer, P. A., & Simons, K. D. (2006). Student strategies for succeeding in PBL environments: Experiences and perceptions of low self-regulating students. *2006 Conference Proceedings of Selected Research and Development Paper Presentations*, Dallas, TX: AECT.

47. Park, S. H.[*], Ertmer, P. A.,[*] & Simons, K. D. (2006). Problem-based learning (PBL) and teachers' beliefs regarding technology use. *2006 Conference Proceedings of Selected Research and Development Paper Presentations*, Dallas, TX: AECT.

48. Richardson, J. C., Ertmer, P. A., Lehman, J. L., & Newby, T. J. (2007). Using peer feedback in online discussions to improve critical thinking. *2007 Conference Proceedings of Selected Research and Development Paper Presentations*, Anaheim, CA: AECT.

49. Ertmer, P. A., et al. (2007). How ID experts use knowledge and experience to solve ill-structured problems. *2007 Conference Proceedings of Selected Research and Development Paper Presentations*, Anaheim, CA: AECT.

50. Ertmer, P. A.[*], Temur-Gedik, N., Richardson, J. R., Yang, D., & Newby, T. J. (2008, March). Undergraduate students' perceptions of the value of online discussions: A comparison between education and engineering students. *SITE* (Society for Information Technology and Teacher Education) *2008 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

51. Ottenbreit-Leftwich, A., Glazewski, K., Newby, T., & Ertmer, P. A. (2008, March). Visions, strategies, and developmental processes of exemplary technology-using teachers. *SITE* (Society for Information Technology and Teacher Education) *2008 Conference Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

52. Ertmer, P. A., Temur-Gedik, N., Richardson, J. R., & Newby, T. J. (2008, July). Perceived value of online discussions: Perceptions of engineering and education students. *Ed-Media 2008 Proceedings*. Charlottesville, VA: Association for the Advancement of Computing in Education.

53. Lehman, J. D.[*], Richardson, J. C., Ertmer, P. A., Newby, T. J., & Campbell, J. C. (2009). Impact of asynchronous online discussions: A study of implementation in two large-enrollment blended courses. In *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2009* (pp. 2928-2936). Chesapeake, VA: AACE

54. York, C. S.[*], Ertmer, P. A., & Gedik, N. (2009). Extracting heuristics from expert instructional designers. *2009 Conference Proceedings of Selected Research and Development Paper Presentations*, Louisville, KY: AECT.

55. Ertmer, P. A., Newby, T. J., Yu, J. H., Liu, W., Tomory, A., Lee, Y., Sendurur, E., & Sendurur, P. (2010). Facilitating student's global perspectives: Collaborating with international partners using Web 2.0 technologies. *2010 Conference Proceedings of Selected Research and Development Paper Presentations*, Anaheim, CA: Association for Educational Communications and Technology.

56. York, C. S., & Ertmer, P. A. (2010). Examining instructional design principles applied by experienced instructional designers. *2010 Conference Proceedings of Selected Research and Development Paper Presentations,* Anaheim, CA: Association for Educational Communications and Technology.

c) Book Reviews

1. Ertmer, P. A. (1993). Review of the book, *Instructional design*. <u>Performance and Instruction</u>, <u>32</u> (10), 44-45.
2. Ertmer, P. A. (1994). Review of the book, *Psychology of learning for instruction*. <u>Educational Technology Research and Development</u>, <u>42</u>(4), 105-107.
3. Ertmer, P. A. (1996). Review of the book, *Constructivist learning environments: Case studies in instructional design* by Brent Wilson (Ed). <u>Educational Technology Research and Development</u>, <u>44</u>(3), 99-101.
4. Ertmer, P. A. (2011). Review of the book, *Instructional Design for Teachers: Improving Classroom Practice* by Alison Carr-Chellman. *Educational Technology, 51*(1), 53-54.
5. Ertmer, P. A. (2013). Instruction using online social media: Examples from the field. Review of the book, *Designing problem-driven instruction with online social media* by Kay Kyeong-Ju Seo, Debra A. Pellegrino, Chalee Engelhard. *Educational Technology*, *53*(6), 56-58.

d) Non-Refereed Publications

1. Ertmer, P. A.[*], & Russell, J. D. (1995). Using case studies to enhance instructional design education. *Educational Technology, 35*(4), 23-31.
2. Ertmer, P. A. (2001). Responsive instructional design: Scaffolding the adoption and change process. *Educational Technology, 41*(6), 33-38.
3. Stepich, D. A.[*], & Ertmer, P. A.[*] (2003). Building community as a critical element of online course design. *Educational Technology*, *43*(5), 33-43.
4. Ertmer, P. A. (2004). ARCS: A model of motivational design. In A. Kovalchick & K. Dawson (Eds.), *Educational technology: An encyclopedia* (pp. 34-38). Santa Barbara, CA: ABC-CLIO.
5. Ertmer, P. A., & Schunk, D. H. (2004). Self-regulated learning. In A. Kovalchick & K. Dawson (Eds.), *Educational technology: An encyclopedia* (pp. 508-515). Santa Barbara, CA: ABC-CLIO.
6. Ertmer, P. A.[*], & Stepich, D. A.[*] (2005). Instructional design expertise: How will we know it when we see it? *Educational Technology, 45*(6), 38-43.
7. Ertmer, P. A.[*], York, C. S., & Gedik, N. (2009). Learning from the pros: How experienced designers translate ID models into practice. *Educational Technology*, *49*(1), 19-26.
8. Mong, C., & Ertmer, P. A. (2013). Addressing STEM education needs: The case for adopting a PBL approach. *Educational Technology, 53*(3), 12-21.
9. York, C. S., & Ertmer, P. A. (2013). Design heuristics in academic, corporate, and military instruction: More similar than different. *Educational Technology*, *53*(4), 17-24.
10. Ertmer, P. A. (2013). Need for cross-disciplinary work: A resonating theme among today's researchers. *Educational Technology, 53*(5), 78.
11. Loizzo, J., & Ertmer, P. A. (2014). Teachers' recommendations for the effective use of social media in the middle school STEM classroom. *Learning & Leading with Technolog*y, *41*(6), 32-35.

12. Lehman, J. D., Ertmer, P. A., & Bessenbacher, A. (2015). STEMEdhub: Supporting STEM education initiatives via the HUBzero platform. *Educational Technology, 55*(2), 31-34.

13. Power, M., & Ertmer, P. A. (2016). Editorial: Introduction to special issue on "Online learning from the instructional designer's perspective: Canadian and European French-language case studies. *Canadian Journal of Learning and Teaching, 41*(4), 1-3.

14. Koehler, A. A., & Ertmer, P. A. (2016). Using Web 2.0 tools to facilitate case-based instruction: Considering the possibilities. *Educational Technology, 56*(1), 3-13.

15. Ertmer, P. A. (2016). Nurturing our design identities. *Educational Technology*, *56*(1), 51-52.

16. Lewandowski, J., van Barneveld, A. & Ertmer, P. A. (2016). Posting with intentionality in online instruction: Supporting instructors' facilitation efforts. *Educational Technology, 56*(4), 15-20.

e) Books and Book Chapters

1. Ertmer, P. A.*, Newby, T. J., Stepich, D. A., Lehman, J. D., & Russell, J. D. (1996). Instructor's Guide for *Instructional Technology for Teaching and Learning*. Englewood Cliffs, NJ: Merrill/Prentice Hall.

2. Newby, T. J.*, & Ertmer, P. A.* (1996). *Computers in the classroom: An on-line textbook*. Englewood Cliffs, NJ: Merrill/Prentice-Hall.

3. Ertmer, P. A. (1997). Common qualitative research designs. In P. D. Leedy, *Practical research: Planning and design* (6th ed.), pp. 155-172. Englewood Cliffs, NJ: Merrill/Prentice-Hall.

4. Leedy, P. D.*, with Newby, T. J., & Ertmer, P. A. (1997). *Practical research: Planning and design* (6th ed.). Englewood Cliffs, NJ: Merrill/Prentice-Hall. (see C.1.a.7)

5. Ertmer, P. A. (1999). Taking stock of your learning; Setting your sights on the future. In P. A. Ertmer & J. Quinn (Eds.), *The ID CaseBook: Case studies in instructional design*. Englewood Cliffs, NJ: Merrill/Prentice Hall.

6. Ertmer, P. A.*, & Cennamo, K. (1999). Denny Clifford. In P. A. Ertmer & J. Quinn (Eds.), *The ID CaseBook: Case studies in instructional design*. Englewood Cliffs, NJ: Merrill/Prentice Hall.

7. Ertmer, P. A. *, & Dick, W. (1999). Frank and Semra. In P. A. Ertmer & J. Quinn (Eds.), *The ID CaseBook: Case studies in instructional design*. Englewood Cliffs, NJ: Merrill/Prentice Hall.

8. Ertmer, P. A.*, & Quinn, J.* (Eds.). (1999). *The ID CaseBook: Case studies in instructional design*. Englewood Cliffs, NJ: Merrill/Prentice-Hall.

9. Ertmer, P. A.*, & Quinn, J.* (Eds.). (1999). Instructor's Guide for *The ID CaseBook: Case studies in instructional design*. Englewood Cliffs, NJ: Merrill/Prentice-Hall.

10. Schunk, D. H.*, & Ertmer, P. A. (2000). Self-regulation and academic learning: Self-efficacy enhancing interventions. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *The handbook of self-regulation* (pp. 631-649). San Diego: Academic Press.

11. Ertmer, P. A., Hruskocy, C., & Woods, D. M. (2000). Education on the Internet. *The WorldWide Classroom: Access to people, resources, and curricular connections*. Upper Saddle River, NJ: Merrill/Prentice Hall.

12. Ertmer, P. A.[*], Newby, T. J., Stepich, D. A., Lehman, J. D., & Russell, J. D. (2000). *Instructor's Guide* for 2nd edition of *Instructional Technology for Teaching and Learning*. Englewood Cliffs, NJ: Merrill/Prentice Hall.

13. Ertmer, P. A.[*], Driscoll, M. P., & Wager, W. (2003). Robert Gagne: The impact of his work on the field of educational psychology. In B. J. Zimmerman & D. H. Schunk (Eds.), *Educational Psychology: A Century of Contributions*. Mahwah, NJ: Lawrence Erlbaum.

14. Ertmer, P. A.[*] & Quinn, J.[*] (Eds.). (2003). *The ID CaseBook: Case studies in instructional design* (2nd ed.). Upper Saddle River, NJ: Merrill/Prentice-Hall.

15. Muehlhausen, J., & Ertmer, P. A. (2003). Jacci Joya. In P. A. Ertmer & J. Quinn (Eds.), *The ID CaseBook: Case studies in instructional design*. Upper Saddle River, NJ: Merrill/Prentice Hall.

16. Ertmer, P. A.[*] & Quinn, J.[*] (Eds.). (2003). Instructor's Guide for 2nd edition of *The ID CaseBook: Case studies in instructional design*. Upper Saddle River, NJ: Merrill/Prentice Hall.

17. Ertmer, P. A., Hruskocy, C., & Woods, D. M. (2003). Education on the Internet. *The WorldWide Classroom: Access to people, resources, and curricular connections* (2nd ed). Upper Saddle River, NJ: Merrill/Prentice Hall.

18. Cennamo, K. S., & Ertmer, P. A. (2005). *Teaching strategies*. An instructor's supplement for *Instructional design in the real world* by Cennamo, K. S., & Kalk, D. Belmont, CA: Thomson Wadsworth. Available online: http://education.wadsworth.com/realworldID

19. Ertmer, P. A.[*] & Quinn, J.[*] (Eds.). (2006). *The ID CaseBook: Case studies in instructional design* (2nd ed.). (Note: Chinese translation of 1.e.14). Higher Education Press: Beijing, China.

20. Ertmer, P. A., & Quinn, J. (Eds.). (2007). *The ID CaseBook: Case studies in instructional design* (3rd ed.). Upper Saddle River, NJ: Merrill/Prentice-Hall.

21. Ertmer, P. A.[*] & Quinn, J.[*] (Eds.). (2007). *Instructor's Guide* for 3rd edition of *The ID CaseBook: Case studies in instructional design*. Upper Saddle River, NJ: Merrill/Prentice Hall. (Available online through P-H Instructor Support Portal)

22. Cennamo, K. S.[*], Ross, J.,[*] & Ertmer, P. A.[*] (2010). *Technology integration for meaningful classroom use: A standards-based approach*. Belmont, CA: Wadsworth.

23. Wang, L., Ertmer, P. A., & Newby, T. J. (2010). Increasing preservice teachers' self-efficacy beliefs for technology integration. In L. Schrum (Ed.), *Considerations on technology and teachers: The best of JRTE* (pp. 33-54). Eugene, OR: International Society for Technology in Education.

24. Park, S. H., & Ertmer, P. A. (2010). Impact of problem-based learning (PBL) on teachers' beliefs regarding technology use. In L. Schrum (Ed.), *Considerations on technology and teachers: The best of JRTE* (pp. 101-126). Eugene, OR: International Society for Technology in Education.

25. Ertmer, P. A., Ottenbreit-Leftwich, A., Sadik, O., Sendurur, E., & Sendurur, P. (2012). Teacher beliefs and technology integration practices: Examining the alignment between espoused and enacted beliefs. In J. Konig (Ed.), *Teachers' pedagogical beliefs: Definitions and operationalization, connections to knowledge and performance, and development and change* (pp. 149 -169). New York: Waxmann.

26. Cennamo, K. S., Ross, J., & Ertmer, P. A. (2014). *Technology integration for meaningful classroom use: A standards-based approach* (2nd ed.). Belmont, CA: Wadswort, Cengage Learning.

27. Richardson, J. C., Sadaf, A., & Ertmer, P. A. (2013). Relationship between types of question prompts and critical thinking in online discussions. In Z. Akyol & R. Garrison (Eds.), *Educational communities of inquiry: Theoretical framework, research and practice* (pp. 197-222). Hershey, PA: Information Science Reference (an imprint of IGI Global)

28. Ertmer, P. A., Quinn, J., & Glazewski, K. (2014). *The ID CaseBook: Case studies in instructional design* (4th ed.). Upper Saddle River, NJ: Pearson.

29. Ertmer, P. A., Quinn, J., & Glazewski (Eds.). (2013). *Instructor's Guide* for 4th edition of *The ID CaseBook: Case studies in instructional design*. Upper Saddle River, NJ: Pearson. (Available online through Pearson Instructor Support Portal)

30. Ertmer, P. A., Parisio, M. L., & Wardak, D. (2013). The practice of educational/instructional design. In R. Luckin, P. Goodyear, B. Grabowski, S. Puntambeker, J. Underwood, & N. Winters (Eds.), *Handbook of design in educational technology* (pp. 5-19). New York: Routledge.

31. Van Barneveld, A., & Ertmer, P. A. (2014). Implementing problem-oriented pedagogies in engineering education: Examination of tensions and drivers. In M. Orey, V. J. McClendon, & R. M. Branch (Eds.), *Educational Media and Technology Yearbook* (Vol. 38), pp. 47-67. New York: Springer.

32. Ertmer, P. A., Ottenbreit-Leftwich, A., & Tondeur, J. (2015). Teacher beliefs and uses of technology to support 21st century teaching and learning. In H. R. Fives, & M. Gill, *International Handbook of Research on Teacher Beliefs*. Erlbaum (pp. 403-418). New York: Taylor & Francis-Routledge.

33. Ertmer, P. A. (2015). Technology integration. In J. M. Spector, T. Johnson, D. Ifenthaler, W. Savenye, & M. Wang (Eds.), *Sage Encyclopedia of Educational Technology* (pp. 747-750). Los Angeles, CA: Sage. http://dx.doi.org/10.4135/9781483346397

34. Walker, A., Leary, H., Hmelo-Silver, C., & Ertmer, P. A. (Eds.) (2015). *Essential readings in problem-based learning: Exploring and extending the legacy of Howard S. Barrows*. West Lafayette, IN: Purdue University Press.

35. Ertmer, P. A., & Glazewski, K. D. (2015). Essentials of PBL implementation: Fostering collaboration, transforming roles, and scaffolding learning. In A. Walker, H. Leary, C. Hmelo-Silver, & P. A. Ertmer (Eds.), *Essential readings in problem-based learning* (pp. 89-106). West Lafayette, IN: Purdue University Press.

36. Ottenbreit-Leftwich, A., Ertmer, P. A., & Tondeur, J. (2015). Interpretation of research on technology integration in teacher education: Preparation and current

practices. In P. Smeyers, D. Bridges, N. C. Burbules, & M. Griffiths (Eds.), *International handbook of interpretation in educational research methods* (pp. 1239-1262). Springer Science + Business Media Dordrecht. DOI: 10.1007/978-94-017-9282-0_61

37. Ertmer, P. A., & Newby, T. J. (2016). Learning theory and technology: A reciprocal relationship. In N. Rushby & D. Surry (Eds.), *Handbook of Learning Technology* (pp. 58-76). Wiley.

38. Ertmer, P. A. (2016). Investing in our future: The role of intentional mentorship. In A. Donaldson (Ed.), *Women's voices in the field of educational technology* (pp. 189-192). Springer. The book was awarded the 2017 James W. Brown Publication Award by the Association for Educational Communications and Technology.

39. Ertmer, P. A., Richardson, J. C., & Lewandowski, J. (2017). Application. In A. A. Pina (Ed.), *Instructional design standards for distance learning* (pp. 62-74). Bloomington, IN: Association for Educational Communications and Technology.

40. Ertmer, P. A., Schlosser, S., Clase, K., & Adedokun, O. (2017). The grand challenge: Using a PBL approach to teach cutting edge science. In T. A. Brush & J. Saye (Eds.), *Developing and supporting PBL practice: Research in K-12 and teacher education settings* (pp. 163-195). West Lafayette, IN: Purdue University Press.

41. Ertmer, P. A., & Glazewski, K. D. (2018). Problem-based learning: Essential design characteristics. In R. A. Reiser and J. V. Dempsey (Eds.), *Trends and Issues in Instructional Design and Technology* (4th ed.), pp. 286-295. Boston, MA: Pearson.

42. Ottenbreit-Leftwich, A. T., Kopcha, T. J., & Ertmer, P. A. (2018). Information and communication technology dispositional factors and relationship to information and communication technology practices. In J. Voogt, G. Knezek, R. Christensen, & Lai, K-W. (Eds.), *Second Handbook of information technology in primary and secondary education* (pp. 309-333). Springer International Publishing

43. Cennamo, K. S., Ross, J., & Ertmer, P. A. (2019). *Technology integration for meaningful classroom use: A standards-based approach* (3rd ed.). Belmont, CA: Wadsworth, Cengage Learning

44. Ertmer, P. A., & Glazewski, K. D. (2019). Scaffolding in PBL environments: Structuring and problematizing relevant task features. In N. Dabbagh, M. Moallem, & W. Hung (Eds.), *Wiley Handbook of Problem-based Learning* (pp. 321-342). Malden, MA: Wiley.

45. Ertmer, P. A., Quinn, J., & Glazewski, K. (2019). *The ID CaseBook: Case studies in instructional design* (5th ed.). New York: NY: Routledge.

46. Ertmer, P. A., Glazewski, K., Koehler, A. A., & Stefaniak, J. E. (2024). *The ID CaseBook: Case studies in instructional design* (6th ed.). Routledge.

2. **Refereed Presentations at Professional Meetings**

   a) **National and International Meetings**

   1. Newby, T. J.,* Ertmer, P. A., & Stepich, D. A. (1994, April). *Instructional analogies and the learning of concepts*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

2. Cennamo, K. S.*, & Ertmer, P. A.* (1995, February). *Teaching instructional design: An apprenticeship model.* Paper presented at the annual meeting of the Association of Educational Communications and Technology, Anaheim.

3. Ertmer, P. A.*, Newby, T. J., & MacDougall, M. (1995, February). *Reflective self-regulation as a facilitative factor in learning from case-based instruction.* Paper presented at the annual meeting of the Association of Educational Communications and Technology, Anaheim.

4. Ertmer, P. A.*, & Russell, J. D. (1995, February). *Using case studies to enhance instructional design courses.* Showcase presentation at the annual meeting of the Association of Educational Communications and Technology, Anaheim.

5. Ertmer, P. A.*, Newby, T. J., & MacDougall, M. (1996, February). *Students' responses to case-based instruction: The role of perceived value.* Paper presented at the annual meeting of the Association of Educational Communications and Technology, Indianapolis.

6. Ertmer, P., Provo, J., Moreno, J., Butcher, C., Leuck, V., MacDougall, M., & Newby, T. J. (1996, February). *Reflections on being research apprentices: A kaleidoscope of perspectives.* Paper presented at the annual meeting of the Association of Educational Communications and Technology, Indianapolis.

7. Leuck, V., Butcher, C., Ertmer, P., Moreno, J., Provo, J., & Newby, T. J. (1996, February). *Teaching study strategies: A potpourri of vignettes.* Paper presented at the annual meeting of the Association of Educational Communications and Technology, Indianapolis.

8. Ertmer, P. A.*, & Newby, T. J. (1996, April). *Students' approaches to case-based instruction: The role of perceived value, learning focus, and reflective self-regulation.* Paper presented at the annual meeting of the American Educational Research Association, New York.

9. Ertmer, P., Provo, J., Moreno, J., Butcher, C., Leuck, V., MacDougall, M., & Newby, T. J. (1996, April). *An apprenticeship approach to inducting novices into research practice.* Paper presented at the annual meeting of the American Educational Research Association, New York.

10. Butcher, C. S.*, Ertmer, P. A., Lehman, J., & McInerney, W. (1996, June). *Combining case-based learning and computer conferencing: A strategy for active learner participation.* Paper presented at the Distance Learning Conference of the Association of Educational and Communications Technology, Florida State University, Tallahassee.

11. Ertmer, P. A.*, & Schunk, D. H.* (1997, February). *Self-regulation during computer skills learning: The influence of goals and self-evaluation.* Paper presented at the annual meeting of the American Educational Research Association, Chicago.

12. Hruskocy, C.*, Cennamo, K. S.*, Ertmer, P. A.*, & Johnson, T. (1997, February). *Students as technology experts: A "Bottom-Up" approach to teacher technology development.* Paper presented at annual meeting of the American Educational Research Association, Chicago.

13. Cennamo, K. S.*, Hruskocy, C., Johnson, T., & Ertmer, P. A. (1997, February). *Creating a learning community for integrating technology in elementary schools.*

Paper presented at annual meeting of the Eastern Educational Research Association, Hilton Head, SC.

14. Ertmer, P. A.[*], Hruskocy, C., Johnson, T., & Lai, F-Q (1998, February). *START--Student trainers as resource technologists: An alternative approach to technology integration*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, St. Louis.

15. Ertmer, P. A.[*], Hruskocy, C., Johnson, T., & Lai, F-Q (1998, April). *START--Student trainers as resource technologists*. Paper presented at the annual meeting of the American Educational Research Association, San Diego.

16. Ertmer, P. A.[*], & Quinn, J.[*] (1998, May). *Using case studies in the education of instructional designers*. A series of interactive sessions presented at the annual meeting of Professors of Instructional Design and Technology, Roanoke, VA.

17. Ertmer, P. A.[*], Addison, P.[*], Lane, M., Ross, E., & Woods, D. (1998, July). *Teachers' beliefs and classroom practice regarding integrated technology use*. Poster-paper presented at Syllabus98, Sonoma State University, CA.

18. Schunk, D. H.[*], & Ertmer, P. A. (1998, August). *Self-evaluation and self-regulated computer learning*. Paper presented at the annual meeting of the American Psychological Association, San Francisco.

19. Hruskocy, C.[*], & Ertmer, P. A.[*], Banta, B. (1999, April). *Project START: Reflections on a three-year university/elementary school partnership using a student-centered approach to technology integration*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

20. Ertmer, P. A.[*] & Quinn, J.[*] (1999, May). *Integrating case studies into instructional design courses*. A series of interactive sessions facilitated at the annual meeting of the Professors of Instructional Design and Technology, Estes Park, CO.

21. Schunk, D. H.[*], & Ertmer, P. A. (1999, August). *Sustaining effort through goal and self-efficacy regulation*. Paper presented at the annual meeting of the American Psychological Association, Boston.

22. Ertmer, P. A.[*], Gopalakrishnan, S., & Ross, E. (2000, February). *VisionQuest: Helping our future teachers envision and achieve technology integration*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, San Diego.

23. Ertmer, P. A.[*], Ross, E., & Gopalakrishnan, S. (2000, February). *Technology-using teachers: How powerful visions and student-centered beliefs fuel exemplary practice*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, San Diego.

24. Ertmer, P. A.[*], Gopalakrishnan, S., & Ross, E. (2000, April). *Examining the pedagogical beliefs of technology-using teachers*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

25. Ertmer, P. A., & Stepich, D. A. (2000, April). *Case-based instruction in post-secondary education: Facilitating "coached expertise."* Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

26. Ertmer, P. A.[*], Gopalakrishnan, S., & Ross, E. (2000, June). *Cultivating powerful visions of classroom integration*. Paper presented at the annual meeting of the National Educational Computing Conference, Atlanta.

27. Ertmer, P. A.[*], Ross, E., Johnson, T., & Gopalakrishnan, S. (2000, October). *Supporting teachers' technology integration efforts through electronic modeling*. Paper presented at the annual meeting of the Association of Educational Communications and Technology (AECT), Denver.

28. Stepich, D.A.[*], Ertmer, P.A.[*], & Lane, M. M. (2000, October). *Using case-based instruction to develop problem-solving skills in instructional design students*. Paper presented at the annual meeting of the Association of Educational Communications and Technology (AECT), Denver.

29. Ertmer, P. A. (2000, October). *Users and designers working hand in hand: The successful integration of learning technologies through the art of negotiation*. Panel discussion presented at the annual meeting of the Association of Educational Communications and Technology (AECT), Denver.

30. Ertmer, P. A.[*], Johnson, T. J., & Lane, M. M. (2001, March). *VisionQuest©: Teacher development model for scaffolding technology integration*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, Orlando, FL.

31. Johnson, T. J.[*], Ertmer, P. A.[*], & Lane, M. M. (2001, March). *VisionQuest©: Creating visions and strategies for technology integration*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, Orlando, FL.

32. Lehman, J. D.[*], Ertmer, P. A.[*], Keck, K., & Steele, K. (2001, March). *In-service teacher development for fostering problem-based integration of technology*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, Orlando, FL.

33. Keck, K., Ertmer, P. A.[*], Lehman, J. D.[*], & Steele, K. (2001, June). *Tech-Know-Build challenge grant: Facilitating problem-based technology integration*. Paper presented at the annual meeting of the National Educational Computing Conference, Chicago.

34. Ertmer, P. A.[*], Conklin, D., & Lewandowski, J. (2001, November). *Preparing preservice teachers for technology integration: Building ideas and confidence*. Paper presented at the annual meeting of the Association of Educational Communications and Technology (AECT), Atlanta.

35. Johnson, T.[*], Ertmer, P. A.[*], & Lane, M. M. (2001, November). *Using real design and development projects to facilitate instructional design apprenticeships*. Paper presented at the annual meeting of the Association of Educational Communications and Technology (AECT), Atlanta.

36. Ross, E. M.[*], Ertmer, P. A., & Johnson, T. (2001, November). *Technology integration and innovative teaching practices: A staff development model*. Paper presented at the annual meeting of the Association of Educational Communications and Technology (AECT), Atlanta.

37. Lehman, J. D.*, & Ertmer, P. A.* (2001, November). *Teacher professional development for problem-based integration of technology*. Paper presented at the annual meeting of the Association of Educational Communications and Technology (AECT), Atlanta.

38. Ertmer, P. A.*, Bai. H., Dong, C., Khalil, M., Park, S., & Wang, L. (2002, March). *Technology leadership: Shaping administrators' knowledge and skills through an online professional development course*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, Nashville, TN.

39. Ertmer, P. A.*, & Lewandowski, J. (2002, March). *Using electronic models to increase preservice teachers' ideas and confidence for technology integration*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, Nashville, TN.

40. Ertmer, P. A., & Lewandowski, J. (2002, April). *Using exemplary models to build preservice teachers' ideas and confidence for technology integration*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

41. Ertmer, P. A. (2002, June). *Online professional development: Building administrators' capacity for technology leadership*. Paper presented at the annual meeting of the National Educational Computing Conference, San Antonio.

42. Ertmer, P. A.*, Quinn, J.*, & Eastmond, N.* (2002, November). *The ID CaseBook goes Hollywood: Using trigger videos to facilitate case-based discussions*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Dallas, TX.

43. Ross, E. M.*, Johnson, T., & Ertmer, P. A., (2002, November). *Technology integration and innovative teaching through collaboration, reflection, and modeling: Research results from implementation of a staff development model*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Dallas, TX.

44. Ertmer, P. A.*, Lehman, J. D., Park, S. H., Cramer, J., & Grove, K. (2003, March). *Barriers to teachers' adoption and use of technology-supported learner-centered pedagogies*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, Albuquerque, NM.

45. Ertmer, P. A. (2003, March). *A critical review of five PT3 projects: Early efforts and initial impacts*. Symposium discussion presented at the annual meeting of the Society for Information Technology and Teacher Education, Albuquerque, NM.

46. Wang, L.*, & Ertmer, P.* (2003, April). *Impact of vicarious learning experiences and goal setting on preservice teachers' self-efficacy for technology integration: A pilot study*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

47. Ertmer, P. A.*, Lehman, J. D., Park, S. H., Cramer, J., & Grove, K. (2003, June). *Adoption and use of technology-supported learner-centered pedagogies: Barriers to teachers' implementation*. Paper presented at the annual meeting of the Ed-Media: World Conference on Educational Multimedia, Hypermedia, and Telecommunications, Honolulu, HA.

48. Wang, L.*, & Ertmer, P.* (2003, October). *Vicarious learning experiences and goal setting: Impact on preservice teachers' self-efficacy for technology integration*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Anaheim, CA.

49. Ertmer, P. A.*, & Stepich, D. A.* (2003, October). *Preparing ID students for professional practice: Increasing impact through distance learning technologies*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Anaheim, CA.

50. Wang, L.*, & Ertmer, P. A.* (2004, April). *Increasing preservice teachers' self-efficacy beliefs for technology integration*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

51. Park, S. H.*, Cramer, J., & Ertmer, P. A. (2004, June). *Implementation of a technology-enhanced problem-based learning curriculum*. Paper presented at the National Educational Computing Conference, New Orleans.

52. Ertmer, P. A.*, & Stepich, D. A.* (2004, July). *Examining the relationship between higher-order learning and students' perceived sense of community in an online learning environment*. Paper presented at AusWeb04, the 10th Australian Worldwide Conference, Gold Coast, Queensland.

53. Albion, P. A.*, & Ertmer, P. A.* (2004, July). *Online courses: Models and strategies for increasing interaction*. Paper presented at AusWeb04, the 10th Australian Worldwide Conference, Gold Coast, Queensland.

54. Park, S. H.*, Cramer, J., & Ertmer, P. A. (2004, October). *Implementation of a technology-enhanced problem-based learning curriculum: A year-long study of three teachers*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Chicago, IL.

55. Bai, H.*, & Ertmer, P. A. (2004, October). *Teacher educators' beliefs and technology uses in relation to preservice teachers' beliefs and technology attitudes*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Chicago, IL.

56. Ertmer, P. A.*, Simons, K.*, Park, S. H., Haas, T., Hudson, H., Muehlhausen, J., & VanHorn, M. (2004, October). *A symposium of PBL-using teachers: Teacher experiences and student impact*. Symposium presented at the annual meeting of the Association for Educational Communications and Technology, Chicago, IL.

57. Shively, G. E.*, & Ertmer, P. A.* (2005, January). *Case studies: A tool for university instruction*. Workshop presented to faculty at Nong Lam University, Ho Chi Minh City, Vietnam.

58. Bai, H.*, & Ertmer, P. A. (2005, March). *Teacher educators' beliefs and technology uses as predictors of students' beliefs and technology attitudes*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, Phoenix, AZ. (See 2.b.35 for related Proceedings publication)

59. Ertmer, P. A.*, & Stepich, D. A.* (2005, March). *Relationship between sense of community and learning in online learning environments*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education,

Phoenix, AZ. (See 2.b.36 for related Proceedings publication and 2.d.3 for related article)

60. Park, S. H.*, Ertmer, P. A.*, & Simons, K. (2005, March). *Problem-based learning and beliefs about technology: Examining the relationship*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, Phoenix, AZ. (See 2.b.37 for related Proceedings publication)

61. Park, S. H.*, Lee, E-H.*, Blackman, J.*, Belland, B., Ertmer, P. A., & Simons, K. (2005, March). *Examining the barriers encountered when planning and implementing technology-enhanced PBL in the middle school classroom*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, Phoenix, AZ. (See 2.b.38 for related Proceedings publication)

62. Simons, K.*, Ertmer, P. A.*, Belland, B., Blackman, J., Lee, E-H., Ottenbreit, A., Park, S. H. (2005, March). *Middle school students in technology-enhanced problem-based learning: Experiences of high and low self-directed students*. Paper presented at the annual meeting of the Society for Information Technology and Teacher Education, Phoenix, AZ.

63. Ertmer, P. A. (2005, April). *Getting started with case teaching*. Invited presentation to faculty and students at Iowa State University. Sponsored by the Center for Excellence in Teaching and Learning (CELT).

64. Ertmer, P. A. (2005, April). *Drafting a case story*. Invited workshop presented to faculty and students in the Department of Horticulture, Iowa State University.

65. Park, S. H.*, Cramer, J., & Ertmer, P. A. (2005, April). *Implementation of a technology-enhanced problem-based learning curriculum: Supporting teachers' efforts*. Paper presented at the 2005 annual meeting of the American Educational Research Association.

66. Macklin, A.*, & Ertmer, P. A. (2005, July). *A community of practice: Integrating information and computer literacy at Purdue University*. Paper presented at the 2005 Syllabus Higher Education Technology Conference, Los Angeles, CA.

67. Ertmer, P. A.*, & Simons, K. D.* (2005, July). *Scaffolding teachers' efforts to implement problem-based learning*. Paper presented at the 12th International Conference on Learning, Granada, Spain. (See 2.a.31 for related publication)

68. Simons, K. D.*, & Ertmer, P. A.* (2005, July). *Scaffolding disciplined inquiry in problem-based environments*. Paper presented at the 12th International Conference on Learning, Granada, Spain. (See 2.a.32 for related publication)

69. Ertmer, P. A.*, Richardson, J. C.*, Belland, B., & Mong, C. (2005, October). *Impact and perceived value of peer feedback in online learning environments*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Orlando. (See 2.a.34 for related publication)

70. Ertmer, P. A.*, Simons, K. D.*, Aagard, H.*, Park, S. H.*, & York, C. S.* (2005, October). *Transition to PBL: Multiple perspectives on the benefits and challenges of adopting a problem-based learning approach*. Symposium presentation at the annual meeting of the Association for Educational Communications and Technology, Orlando.

71. Park, S. H.*, Ertmer, P. A.*, & Simons, K. (2005, October). *Impact of problem-based learning on pre-service teachers' beliefs about technology*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Orlando.

72. Park, S. H.*, Lee, E-H.*, Blackman, J.*, Ertmer, P. A., Schaffer, S., Simons, K., & Belland, B. (2005, October). *Examining barriers middle school teachers encounter in technology-enhanced problem-based learning*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Orlando. (See 2.b.40 for related Proceedings publication)

73. Richardson, J. C.*, Ertmer, P. A.*, Aagard, H., Lehman, J., Newby, T., & Campbell, J. (2005, October). *Scaffolding student learning through peer-rated online discussion*. Roundtable presented at the annual meeting of the Association for Educational Communications and Technology, Orlando.

74. Simons, K. D.*, Ertmer, P. A.*, Lehman, J., Ottenbreit, A.*, & TKB Team. (2005, October). *The relationship between self-directedness and student success in technology-enhanced PBL units*. Symposium presentation at the annual meeting of the Association for Educational Communications and Technology, Orlando.

75. York, C.S.*, Ottenbreit-Leftwich, A.,* & Ertmer, P. A.* (2005, October). *Exemplary technology use: Teachers' perceptions of critical factors*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Orlando. (See 2.b.41 for related Proceedings publication)

76. Macklin, A.*, & Ertmer, P. A. (2005, October). *A community of practice: Integrating Information and Communication Technology (ICT) literacy into the curriculum at Purdue University*. Paper presented at the annual EDUCAUSE conference, Orlando.

77. Richardson, J. C.*, Ertmer, P. A.*, Newby, T. J.*, Aagard, H., Akridge, J., Campbell, J. P., Lehman, J. D., & Swain, P. (2005, October). *Scaffolding student learning through peer-rated online discussions*. Paper presentation at the annual SLOAN-C International conference on Asynchronous Learning Networks, Orlando.

78. Lee, Y.*, & Ertmer, P. A.* (2006, March). *Increasing the impact of vicarious learning experiences through the use of small group discussions and question prompts*. Paper presented at SITE, Orlando, FL.

79. Bai, H.*, & Ertmer, P. (2006, April). *Teacher educators' beliefs and technology uses as predictors of preservice teachers' beliefs and technology attitudes*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

80. Ertmer, P. A. (2006, April). *Teacher pedagogical beliefs and classroom technology use: A critical link*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

81. Ertmer, P. A.*, Richardson, J. C.*, Belland, B., Camin, D., Coulthard, G., & Mong, C. (2006, April). *Efficacy of peer feedback in online learning environments*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

82. Ottenbreit-Leftwich, A.*, Simons, K. D.*, & Ertmer, P. A.* (2006, April). *Student strategies for succeeding in PBL environments: Experiences and perceptions of low self-regulating students*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

83. Park, S. H.*, Ertmer, P. A.*, & Simons, K. D. (2006, April). *Problem-based learning and teachers' beliefs regarding technology use*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

84. Richardson, J. C.*, Ertmer, P. A.*, Aagard, H., Lehman, J., Newby, T., Swain, P., Campbell, J., & Akridge, J. (2006, April). *Scaffolding student learning through peer-rated online discussion*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

85. Reiser, R. A.*, & Ertmer, P. A.*, and others. (2006, April). *Inducting instructional design and technology students into the research process: Two approaches*. Symposium presented at the annual meeting of the American Educational Research Association, San Francisco.

86. Simons, K. D.*, & Ertmer, P. A.* (2006, April). *Learning science through Tech-Know-Build: One middle school problem-based learning model*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

87. Bai, H.*, & Ertmer, P. A. (2006, October). *How teacher educators' beliefs and technology uses are related to preservice teachers' beliefs and attitudes toward technology*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Dallas.

88. Lee, Y.*, & Ertmer. P. A.* (2006, October). *The use of group discussions and question prompts for increasing the impact of vicarious learning experiences*. Paper presented as a special research presentation at the annual meeting of the Association for Educational Communications and Technology, Dallas.

89. Ottenbreit-Leftwich, A.*, Simons, K. D.*, & Ertmer, P. A.* (2006, October). *Student strategies for succeeding in PBL environments: Experiences and perceptions of low self-regulating students*. Paper presented as a special research presentation at the annual meeting of the Association for Educational Communications and Technology, Dallas.

90. Park, S. H.*, & Ertmer, P. A., & Simons, K. D. (2006, October). *Problem-based learning and preservice teachers' beliefs regarding technology use*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Dallas.

91. Belland, B., R., Simons, K. D., & Ertmer, P. A. (2007, April). *Inclusion and problem-based learning: Roles of students in mixed-ability groups*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

92. Ertmer, P. A., Stepich, D. A., Stickman, A., Wu, X., York, C. S., & Zurek, S. (2007, April). *The role of knowledge and experience in expert problem solving*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

93. Park, S. H., Ertmer, P. A., & Simons, K. D. (2007, April). *Impact of problem-based learning on teachers' beliefs regarding technology use*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

94. Richardson, J. C., Ertmer, P. A., Newby, T. J., & Lehman, J. D. (2007, April). *Peer feedback in online discussions: Can we impact students' critical thinking skills?* Paper presented at the annual meeting of the American Educational Research Association, Chicago.

95. Richardson, J. C., & Ertmer, P. A. (2007, July). *Using peer feedback to enhance the quality of student online postings*. Paper presented at the 2007 China-U.S. Conference on Literacy. Beijing, Peoples Republic of China.

96. Ertmer, P. A., Simons, K. D., Jones, D., Leftwich-Ottenbreit, A., Goktas, Y., & Kocaman, A. (2007, October). *Teachers' strategies for effectively implementing PBL in the middle school classroom.* Paper presented at the annual meeting of the Association for Educational Communications and Technology, Anaheim.

97. Simons, K. D., & Ertmer, P. A. (2007, October). *Fostering socioscientific reasoning in problem-based learning: An examination of teacher practice*. Paper presented as a feature research presentation at the annual meeting of the Association for Educational Communications and Technology, Anaheim.

98. Ertmer, P. A., York, C., & Stickman, A. (2007, October). *How ID experts use knowledge and experience to solve ill-structured problems*. Paper presented as a feature research presentation at the annual meeting of the Association for Educational Communications and Technology, Anaheim.

99. Richardson, J. C., Ertmer, P. A., Newby, T. J., & Lehman, J. D. (2007, October). *Can peer feedback in online discussion improve critical thinking?* Paper presented at the annual meeting of the Association for Educational Communications and Technology, Anaheim.

100. Ottenbreit-Leftwich, A., Glazewski, K. D., Newby, T. J., Ertmer, P. A., & Richardson, J. C. (2007, October). *What are the technology integration visions, strategies, and developmental processes of expert technology-using teachers?* Paper presented at the annual meeting of the Association for Educational Communications and Technology, Anaheim.

101. Ertmer, P. A., & Glazewski, K. D. (2008, January). *PBL in the middle-school classroom: Strategies for successful implementation.* Paper presented at the 2008 PBL Congress. Colima, Mexico.

102. Macklin, A. S., & Ertmer, P. A. (2008, January). A PBL approach for teaching complex information and communication technology (ICT) skills in higher education. Paper presented at the 2008 PBL Congress. Colima, Mexico.

103. Ertmer, P. A., Temur-Gedik, N., Richardson, J. C., & Newby, T.J. (2008, March). *Undergraduate students' perceptions of the value of online discussions: A comparison between education and engineering students.* Paper presented at the annual meeting of the Society for Information Technology in Teacher Education. Las Vegas, NV.

104. Ertmer, P. A., Stepich, D. A., Flanagan, S., Kocaman, A., Reiner, C., Reyes, L., Santone, A., & Ushigusa, S., (2008, March). *Ill-structured problem solving: Helping*

instructional design novices perform like experts. Paper presented at the annual meeting of the American Educational Research Association.

105. Belland, B. R., French, B., & Ertmer, P. A. (2008, March). V*alidity and problem-based learning: A review of instruments used to assess intended learning outcomes.* Paper presented at the annual meeting of the American Educational Research Association, New York.

106. Ertmer, P. A. (2008, March). *Problem-based learning.* Research Leaders' Roundtable Session presented at the annual meeting of the American Educational Research Association, New York.

107. Gedik, N., Ertmer, P. A., & Yildirim, S. (2008, July). *Cross-cultural collaborations: Building a community of learners using Internet-based videoconferencing.* Paper presentation at the Ed-Media World Conference on Educational Multimedia, Hypermedia, and Telecommunications. Vienna, Austria.

108. Weibelzahl, S., de Bra, P., Paramythis, A., Kepler, J., Ertmer, P. A., Desjardins, F. (2008, July). *Adaptive or collaborative learning?* Panel presentation at the Ed-Media World Conference on Educational Multimedia, Hypermedia, and Telecommunications. Vienna, Austria.

109. Ertmer, P. A., Gedik, N., Richardson, J. C., Newby, T. J. (2008, July). *Perceived value of online discussions: Perceptions of engineering and education students.* Paper presentation at Ed-Media World Conference on Educational Multimedia, Hypermedia, and Telecommunications. Vienna, Austria.

110. Ertmer, P. A., Flanagan, S., & Reyes, L. (2008, November). *Scaffolding problem-solving efforts of instructional design novices: Impact on performance.* Featured research paper presented at the annual meeting of the Association for Educational Communications and Technology. Orlando, FL.

111. Ottenbreit-Leftwich, A., Glazewski, K., & Ertmer, P. A., (2008, November). *Values associated with using technology to address professional and student needs.* Paper presented at the annual meeting of the Association for Educational Communications and Technology. Orlando, FL. (recipient of the Young Researcher award)

112. Kim, M., Ertmer, P. A., Plass, J., Homer, B., Milne, C., Jordan, T., and others (2008, November). *Technology-enhanced scaffolds for problem-based chemistry learning: Findings from students' knowledge gains, inquiry strategies, and peer interaction.* Paper presented at the annual meeting of the Association for Educational Communications and Technology. Orlando, FL

113. Richardson, J. C., Ertmer, P. A., and others (2008, November). *Online discussion question formats: Impact on students' perceived and actual learning.* Paper presented at the 14th Sloan-C International Conference on Asynchronous Learning Networks, Orlando.

114. Ertmer, P. A.*, & Mong, C.* (2009, April). *How are designers taught to do what they do? Multiple approaches to masters-level design education.* Poster presented at the annual meeting of the American Educational Research Association. San Diego, CA.

115. Ertmer, P. A.*, & Ottenbreit-Leftwich, A. T.* (2009, April). *Teacher technology change: How knowledge, beliefs, and culture intersect.* Paper presented at the annual meeting of the American Educational Research Association. San Diego, CA.

116. York, C. S.*, Ertmer, P. A., & Gedik, N. (2009, April). *Extracting heuristics from instructional design experts.* Paper presented at the annual meeting of the American Educational Research Association. San Diego, CA.

117. Lehman, J. D.*, Richardson, J. C., Ertmer, P. A., & Newby, T. J. (2009, June). *Impact of asynchronous online discussions: A study of implementation in two large-enrollment blended courses.* Paper presented at the Ed-Media World Conference on Educational Multimedia, Hypermedia, and Telecommunications. Honolulu, Hawaii.

118. Glazewski, K. D.*, & Ertmer, P. A. (2009, July). *Fostering social-scientific reasoning in problem-based learning: An examination of teacher practice.* Paper presented at the 16th annual meeting of the International Conference on Learning. Barcelona, Spain.

119. Ertmer, P. A.*, & Park, S. H. (2009, August). *Changing teachers' beliefs toward classroom technology use: The potential of problem-based learning.* Paper presented at the bi-annual meeting of the European Association for Research on Learning and Instruction. Amsterdam, Netherlands.

120. Ertmer, P. A.*, Newby, T. J.*, Liu, W.*, Tomory, A., Yu, J. H.* (2009, October). *Using Web 2.0 applications to engage students in international experiences.* Showcase poster presented at the annual meeting of the Association for Educational Communications and Technology. Louisville, KY.

121. Ertmer, P. A. (2009). *Publishing your research and development: The editors' perspectives.* Panel presentation at the annual meeting of the Association for Educational Communications and Technology. Louisville, KY.

122. Kim, M., Ertmer, P. A.*, Fang, J.*, Freemyer, S.*, Sadaf, A.*, & Tomory, A. (2009, October). *Classroom-based scaffolding for chemistry learning: What critical factors influence rural middle school students' inquiry.* Featured research paper presented at the annual meeting of the Association for Educational Communications and Technology. Louisville, KY.

123. Kim, M., Fang, J.*, Freemyer, S.*, Sadaf, A.*, & Ertmer, P. A., (2009, October). *Guidelines for designing inquiry-based simulations: An examination of the ongoing development of a chemistry simulation for middle and high school students.* Paper presented at the annual meeting of the Association for Educational Communications and Technology. Louisville, KY.

124. Lehman, J. D.*, Richardson, J. C., Ertmer, P. A., Cheng, X.*, Mong, C.*, & Sadaf, A.* (2009, October). *Using asynchronous online discussions in blended courses: Comparing impacts across courses in three content areas.* Paper presented at the annual meeting of the Association for Educational Communications and Technology. Louisville, KY.

125. York, C. S.*, Ertmer, P. A., & Gedik, N. (2009, October). *Extracting heuristics from instructional design experts.* Paper presented at the annual meeting of the Association for Educational Communications and Technology. Louisville, KY.

126. Ertmer, P. A., Newby, T. J., Liu, W., Tomory, A., Yu, J. H., & Arnold, K. (2010, May). *Transforming students' international experiences through the Use of Web 2.0 tools.* Poster presented at the annual meeting of the American Educational Research Association. Denver, CO.

127. Ertmer, P. A., & Reiser, R. A. with Chen, X., Kim, H., Olesova, L., & Sadaf, A. (2010, May). *Preparing students to be skilled instructional technology researchers: Multiple approaches*. Structured poster presented (and facilitated) at the annual meeting of the American Educational Research Association. Denver, CO.

128. Ertmer, P. A., Richardson, J. C., Lehman, J. D., Newby, T. J., Cheng, X., Mong, C., & Sadaf, A. (2010, May). *Peer feedback in online discussions: Impact on self-regulation*. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.

129. Ertmer, P. A., Strobel, J., and others (2010, May). *Expression of critical thinking in nursing simulations: Comparisons across roles*. Paper presented at the annual meeting of the American Educational Research Association. Denver, CO.

130. Richardson, J. C., Ertmer, P. A., Sadaf, A., & Mong, C. (2010, May). *Examining the relationship between students' preferred instructional strategies and critical thinking levels in online discussions*. Paper presented at the annual meeting of the American Educational Research Association. Denver, CO.

131. Richardson, J. C., Ertmer, P. A., Newby, T. J., Lehman, J. D., Cheng, C., Mong, C., & Sadaf, A. (2010, May). *Impact of peer feedback in online discussions on students' motivation and learning strategies*. Paper presented at the annual meeting of the American Educational Research Association. Denver, CO.

132. York, C. S., & Ertmer, P. A. (2010, October). *Examining the instructional design heuristics applied by experienced designers in practice*. Paper presented at the annual meeting of the Association for Educational Communications and Technology. Anaheim, CA.

133. Ertmer, P. A., Newby, T. J., Yu, J. H., Liu, W., Tomory, A., & Lee, Y. M. (2010, October). *Facilitating students' global perspectives: Collaborating with international partners using Web 2.0 technologies*. Paper presented at the annual meeting of the Association for Educational Communications and Technology. Anaheim, CA.

134. Sadaf, A., Richardson, J. C., & Ertmer, P. A. (2010, October). *The impact of question types on critical thinking in online discussions*. Paper presented at the annual meeting of the Association for Educational Communications and Technology. Anaheim, CA.

135. Ertmer, P. A., & Ertmer, D. J. (2011, February). *Designing effective question prompts to facilitate critical thinking in online discussions*. 5th International Conference on Design Principles and Practices. Rome, Italy.

136. Ertmer, P. A., & Newby, T., J. (2011, March). *Facilitating students' global perspectives using Web 2.0 technologies to collaborate with international partners*. Rethinking Education In The Knowledge Society International Conference. Ascona, Switzerland.

137. Ertmer, P. A. (2011, May). *Reflections on the clinical model: Pedagogical design issues*. Discussant presentation for an interactive symposium (Using Simulation to Achieve Standardized, Competency-Based Curricula and Assessments) at the annual meeting of the American Educational Research Association. New Orleans.

138. Kim, M., Ertmer, P. A., Fang, J., Kim, W., Tomory, A., & Freemyer, S. (2011, May). *Challenges of facilitating technology-enhanced inquiry among high school science*

students: A multiple case study. Paper presentation at the annual meeting of the American Educational Research Association. New Orleans.

139. Sadaf, A., Newby, T., & Ertmer, P. A. (2011, May). *Investigating pre-service teachers' views and intentions to use Web 2.0 tools using decomposed theory of planned behavior.* Paper presentation at the annual meeting of the American Educational Research Association. New Orleans.

140. Sadaf, A., Richardson, J., & Ertmer, P. A. (2011, May). *Impact of initial question prompts on critical thinking in online discussions.* Paper presentation at the annual meeting of the American Educational Research Association. New Orleans.

141. Strobel, J., Ertmer, P. A., & others (2011, May). *Participatory game design to teach first-year engineering students career-relevant competencies.* Paper presentation at the annual meeting of the American Educational Research Association. New Orleans.

142. York, C. S., & Ertmer, P. A. (2011, May). *Towards an understanding of instructional design heuristics: An exploratory Delphi study.* Paper presentation at the annual meeting of the American Educational Research Association. New Orleans.

143. Bishop, M. J., Tracey, M., Boling, E., Ertmer, P. A., Kozalska, T., & Lockee, B. (2011, November). *Road to Full Professor for Women in Academia.* Presidential presentation at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

144. Fadde, P., & Ertmer, P. A. (2011, November). *Expertise and the education of professional instructional designers.* Panel presentation at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

145. Hodges, C., Branch, R., Ertmer, P. A., Grant, M., & Smaldino, S. (2011, November). *Is a book a good idea before tenure?* A panel presentation at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

146. Kim, M., Ertmer, P. A., Kim, W., Fang, J., & Tomory, A. (2011, November). *Strategies and challenges of student use of simulations in the classroom: Comparison of two dyads.* Paper presented as a **Featured Research Paper** at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

147. Kim, W., Kim, M., Ertmer, P. A., Fang, J., Tomory, A. (2011, November). *Student use of simulation for inquiry learning in chemistry classes: Key characteristics of simulations.* Paper presented at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

148. Reiser, R. A., Ertmer, P. A., and others (2011, November). *Preparing students in instructional design and technology to become skilled researchers: Multiple approaches.* Presidential presentation at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

149. Sadaf, A., Richardson, J., & Ertmer, P. (2011, November). *Relationship between question prompts and critical thinking in online discussions.* Paper presented at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

150. Sadaf, A., Newby, T., J., & Ertmer, P. A. (2011, November). *Factors affecting pre-service teachers' intentions to use Web 2.0 technologies to supplement student*

learning in K-12 classrooms. Paper presented at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

151. Ertmer, P. A., Ottenbreit-Leftwich, A., Sadik, O., Sendurur, E., & Sendurur, P. (2011, November). *Teacher beliefs and technology integration practices*. Invited presentation at the International Symposium on Pedagogical teachers' beliefs and its relation to knowledge and performance. University of Cologne: Cologne, Germany.

152. Loizzo, J., Capobianco, B., Ertmer, P. A., & Watson, W. (2012, March). *Scientists help others: Student experiences with an electronic field trip*. Paper presented at the annual meeting of National Science Teacher Association, Indianapolis.

153. Goodpaster, K., Adedokun, O., Kirkham, L., Ertmer, P., Clase, K., & Weaver, G. (2012, March). *The impact of a professional development workshop on rural STEM teachers' self-efficacy and biofuels knowledge*. Paper presented at the annual meeting of National Science Teacher Association, Indianapolis.

154. Ertmer, P. A. (2012, April). *The grand challenge: Helping teachers learn/teach cutting edge science via a PBL approach*. Paper presented as part of a symposium (Preparing current and future teachers to implement technology-enhanced problem-based learning strategies in their classrooms: Research and recommendations) at the annual meeting of the American Educational Research Association. Vancouver, Canada.

155. Cook, N. D., Adedokun, O. A., Kirkham, L. P., Clase, K. L., Ertmer, P. A., Riggs, E. Hill, J., Moon, S., McCann, M., & Weaver, G. C. (2012, October). *Infusing rural high school science curricula with cutting edge research: Purdue University's "Research Goes to School" program*. Paper presented at the annual meeting of the National Rural Education Association Conference. Cincinnati, OH.

156. Ertmer, P. A. (2012, November). *Putting the quality in qualitative research*. Presentation as part of the President's Forum (Publish Don't Perish) at the annual meeting of the Association for Communications and Technology. Louisville, KY.

157. Ertmer, P. A., & Ottenbreit-Leftwich (2012, November). *Teacher beliefs and technology integration practices: A critical relationship*. Paper presented as a **Featured Research Paper** at the annual meeting of the Association for Educational Communications and Technology. Louisville, KY.

158. Ertmer, P. A., & Dias, L. B. (2012, November). *Perceptions of TPCK: A variety of perspectives*. Panel presentation during the Teacher Education Division luncheon at the annual meeting of the Association for Educational Communications and Technology. Louisville, KY.

159. York, C. S., & Ertmer, P. A. (2013, May). *Military instructional design heuristics*. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, CA.

160. Van Barneveld, A., Ertmer, P. A., & Newby, T. J. (2013, May). *Preparation and lessons learned form the first year of a new online graduate program in Learning Design and Technology*. Paper presented at the 2013 Canadian Network for Innovation in Education, Ottawa, Ontario, Canada.

161. Tondeur, J., van Braak, J., Ertmer, P. A., & Leftwich, A. (2013, September). *The link between teachers' pedagogical beliefs and technology use in the classroom: A*

systematic review of qualitative evidence. Paper accepted for presentation at the European Conference on Educational Research. Istanbul, Turkey.

162. Ertmer, P. A., & Koehler, A. (2013, October). *Examining student engagement in the problem space afforded by case-based discussions*. Paper presented at the annual meeting of the Association for Educational Communications and Technology. Anaheim, CA. ** Received the 2013 AECT Outstanding Research and Theory Division-sponsored Presentation Award.

163. Ertmer, P. A. (2013, October). *Communicating with your promotions and tenure committee: The value of IDT scholarship*. IDT Professor's Forum panel presentation at the annual meeting of the Association for Educational Communications and Technology. Anaheim, CA.

164. Loizzo, J., & Ertmer, P. A. (2013, November). *Implementation of cloud-based computing in a blended learning multimedia undergrad course*. Paper presented at the annual SLOAN-C International Conference on Online Learning. Orlando, FL.

165. Mong, C., & Ertmer, P. A. (2014, April). *Examining the impact of a professional development course on STEM teachers' acceptance of problem-based learning*. Poster presented at the annual meeting of the American Educational Research Association. Philadelphia, PA.

166. Yu, J-H., Newby, T. J., & Ertmer, P. A. (2014, April). *Investigating the relationship between learning engagement, satisfaction, reflective learning, and learning transfer in a flipped teacher education program*. Round table presented at the annual meeting of the American Educational Research Association. Philadelphia, PA.

167. Ertmer, P. A. & Koehler, A. (2014, April). *Online case-based discussions: examining coverage of the afforded problem space*. Paper presented at the annual meeting of the American Educational Research Association. Philadelphia, PA.

168. Ertmer, P. A. (2014, April). *Getting published: Tips for success*. Presentation to the faculty of Bolu University. Bolu, Turkey.

169. Ertmer, P. A. (2014, April). *Relationship between teachers' beliefs and technology integration*. Presentation to the faculty of Bolu University. Bolu, Turkey.

170. Ertmer, P. A. (2014, May). *Examining the relationship between teacher beliefs and technology integration practices*. Presentation to the Learning and Educational Technology Research Unit at the University of Oulu. Oulu, Finland.

171. Yu, J-H., Ertmer, P. A., & Newby, T. J. (2014, July). *Enhancing faculty and student readiness for a flipped teacher education program*. Paper presented at the AECT Summer Research Symposium. Jacksonville, FL.

172. Mong, C., & Ertmer, P. A. (2014, November). *Effects of a professional development course on teachers' confidence for using problem-based learning with STEM content*. Paper presented at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

173. Ertmer, P. A., & Koehler, A. A. (2014, November). *Examining differences between facilitated and non-facilitated case discussions: Extent and quality of problem space coverage*. **Featured Research** paper presented at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

174. Loizzo, J., & Ertmer, P. A. (2014, November). *Using the mobile and mighty i-pad mini for undergraduate multimedia project-based learning*. Paper presented at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

175. Yu, J-H., Ertmer, P. A., & Newby, T. J. (2014, November). *The relationship between satisfaction, learning engagement, reflective learning experiences, and intention to transfer learning within a flipped teacher education program: A path analysis*. Paper presented at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

176. Yu, J-H., & Ertmer, P. A. (2014, November). *The relationship between pre-service teachers' personal epistemologies and perceptions of knowledge construction in online communities: A structural equation model*. Paper presented at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

177. Tawfik, A., Choi, I., Ertmer, P. A., Fitzgerald, G., & Glazewski, K. (2014, November). *The role of contextualized learning when designing for problem solving*. Panel presentation at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

178. Ertmer, P. A. (2014, November). Facilitator for the Presidential Session, *AECT Guide to Tenure and Promotion*, at the annual meeting of the Association for Educational Communications and Technology. Jacksonville, FL.

179. Ertmer, P. A., & Koehler, A. A. (2015, January). *Asynchronous online case discussions: Comparing differences in problem space coverage*. Paper presented at the Hawaii International Conference on Education. Honolulu, Hawaii.

180. Ertmer, P. A., & Koehler, A. A. (2015, April). *Facilitated vs. non-facilitated case discussions: Comparing differences in problem-space coverage*. Presentation at the annual meeting of the American Educational Research Association. Chicago, IL.

181. Ertmer, P. A., & Kilnic, A. (2015, April). *Preservice teachers' intentions to use educational technologies: The mediating role of risk perceptions*. Presentation at the annual meeting of the American Educational Research Association. Chicago, IL.

182. Watson, S. L., Loizzo, J., Watson, W. R., Mueller, C., Lim, J., & Ertmer, P. A. (2015, November). *Instructional design, facilitation, and perceived learning gains: An exploratory case study of a human trafficking MOOC for attitude change*. Presentation at the annual meeting of the Association for Educational Communications and Technology. Indianapolis, IN.

183. van Barneveld, A., Lewandowski, J., & Ertmer, P. A. (2015, November). *Intentional scaffolding in case-based instruction: A digital tutorial*. Showcase presentation at the annual meeting of the Association for Educational Communications and Technology. Indianapolis, IN.

184. Watson, S. L., Koehler, A. A., Kim, W., Rico, R., Watson, W., & Ertmer, P. A. (2015, November). *An expert facilitator's use of social congruence, cognitive congruence and expertise in a case-based instructional design course*. Paper presentation at the annual meeting of the Association for Educational Communications and Technology. Indianapolis, IN.

185. Cennamo, K. S., Conol, G., Ertmer, P. A., & Ruggiero, D. (2015, November). *Alternatives to lecture*. Panel presentation for the Graduate Student Association at the annual meeting of the Association for Educational Communications and Technology. Indianapolis, IN.

186. Loizzo, J., & Ertmer, P. A. (2015, November). *A preliminary conceptual framework of the adult learner social science MOOC experience*. Paper presentation at the annual meeting of the Association for Educational Communications and Technology. Indianapolis, IN.

187. Loizzo, J., & Ertmer, P. A. (2015, November). *MOOCocracy – a social learning democracy: The adult learner culture of MOOCs*. Paper presentation at the annual meeting of the Association for Educational Communications and Technology. Indianapolis, IN.

188. Weiling, L., Ertmer, P. A., Schlosser, S. & Kirkham, L. (2016, March). *Preparing high school teachers for cutting edge science via a PBL approach: Results of a five-year professional development workshop*. Presentation at the International Conference on New Perspectives in Science Education. Florence, Italy.

189. Loizzo, J., & Ertmer, P. A. (2016, March). *Using photo-elicitation, video interviews, and narrative to explore adult learners' MOOC experiences*. Paper accepted for presentation at the 12th International Congress of Qualitative Inquiry. University of Illinois, Urbana-Champaign, IL.

190. Ertmer, P. A. (2016, April). Scaffolding instructors' facilitation of online case discussions: Development and use of a digital tutorial. Presentation at the DEANZ conference. Auckland, NZ.

191. Ertmer, P. A. (2016, April). *Asynchronous online discussions: Impact of facilitation on content coverage*. Invited presentation to faculty at the University of Canterbury. Christchurch, NZ.

192. Ertmer, P. A. (2016, April). Increasing teachers' capacity for innovative learning pedagogies. Invited Prestige Lecture presented to faculty at the University of Canterbury. Christchurch, NZ.

193. Ertmer, P. A., & Koehler, A. A. (2016, October). *Similarities and differences in facilitation strategies and problem-space coverage: Comparing face-to-face and online discussions*. Paper presented at the annual meeting of the Association for Educational Communications and Technology. Las Vegas, NV.

194. Ertmer, P. A. (2016, October). *Women's Voices in the Field of Educational Technolog*y. Panel presentation at the annual meeting of the Association for Educational Communications and Technology. Las Vegas, NV.

195. Ertmer, P. A. (2017, March). *Baby Steps: Scaffolding teachers' uses of innovative learning pedagogies*. Invited presentation at the annual meeting of the Society for Information Technology in Teacher Education (SITE) conference. Austin, TX.

196. Ertmer, P. A., & Koehler, A. A. (2017, May). *Comparing face-to-face and online discussions: Similarities and differences in facilitation strategies and problem-space coverage*. Paper presented at the annual meeting of the American Educational Research Association. San Antonio, TX.

197. Glazewski, K. D. & Ertmer, P. A. (2020, Apr 17 - 21) *Critical considerations for the future of problem-based learning in K–12: Supporting diversity and cultivating inclusivity* [Symposium]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/vbm6hr4 (Conference Canceled)

198. Ertmer, P. A. (2020, November). *Problematizing complex problem solving*. Distinguished Development Award presentation at the annual meeting of the Association for Communications and Technology. Virtual Meeting.

199. West, R. E., Ertmer, P. A., & McKenney, S. (2020, November). *The role of theory in learning design and technology research and practice: A special issue in Educational Technology Research and Development*. Interactive Presidential Session at the annual meeting of the Association for Communications and Technology. Virtual meeting.

200. Glazewski, K. D., Ertmer, P. A., & Hmelo-Silver, C. (2021, April). *Contexts and approaches that foster complex problem solving for a wide range of diverse learners: Origins and conceptual foundations*. Roundtable presentation at the annual meeting of the American Educational Research Association. Virtual meeting.

b) Regional Meetings

1. Cennamo, K. S., Ertmer, P. A., & Butcher, C. (1996, March). *Instructional design strategies for technology*. Workshop developed and presented to the ACE North Central Regional Conference, Purdue University, West Lafayette.

2. Ertmer, P. A.[*], & Newby, T. J.[*] (1996, November). *Case-based instruction as a motivational strategy for fostering students' problem-solving skills*. Presentation at the Critical Issues in Education Symposium: Motivation in the Classroom. Purdue University, West Lafayette.

3. Moreno, J.[*], Lai, F-Q, Ertmer, P. A., Butcher, C., Leuck, V., & Newby, T. (1997, March). *Integrating computer activities into day-to-day teaching and learning situations*. Workshop presented at the Indiana Computing Educators Conference, Indianapolis, IN.

4. Ertmer, P. A.[*], Addison, P., Lane, M., Ross, E., & Woods, D. (1998, January). *Integrating technology into the K-6 curriculum*. Seminar presented at the Indiana Computing Educators Conference. Indianapolis, IN.

5. Ertmer, P. A., & VanFossen, P. (1999, July). *Strategies for technology integration in core methods courses*. Presentation at the Indiana University Pre-service Teacher Education and Technology Summer Seminar Series. Bloomington, IN.

6. Ertmer, P. A., & Stepich, D. A. (1999, October). *Case-based instruction in post-secondary education: Developing students' problem-solving expertise*. Paper presented at the annual meeting of the Mid-Western Educational Research Association, Chicago.

7. Ertmer, P. A., Gopalakrishnan, S., & Ross, E. (2000, January). *VisionQuest: Helping teachers envision and achieve technology integration*. Paper presented at the Indiana Computing Educators Conference. Indianapolis, IN.

8. Ertmer, P. A., & Johnson, T. J. (2001, February). *VisionQuest©: Helping teachers envision and achieve technology integration*. Electronic poster presented at the Teaching, Learning, and Technology Showcase. MIDC, Purdue University.

9. Ertmer, P. A. (2001, October). *The future of information assurance: Preparing students for professional practice*. Presentation at "Protecting Information in the Computer and Beyond: A Faculty Development Workshop" sponsored by the Center for Educational Research in Information Assurance and Security, Purdue University.

10. Ertmer, P. A., Case, C., Farrell, M., & Yarnall, M. (2002, January). *Using and developing problem-based learning units for professional development*. Paper presented at the Indiana Computing Educators Conference, Indianapolis, IN.

11. Ertmer, P. A., & Johnson, T. (2002, January). *VisionQuest: Building teachers' capacity for technology integration*. Workshop presented at the Indiana Computing Educators Conference, Indianapolis, IN.

12. Keck, K, Steele, K, Ertmer, P. A., & Lehman, J. D. (2002, January). *Tech-Know-Build: Indiana Students Building Knowledge with Technology*. Conference presentation at the Indiana Computing Educators Conference, Indianapolis, IN.

13. Diwakar, V.*, Ertmer, P. A., & Nour, A. (2003, April). *Characteristics of students enrolled in physiology distance learning courses*. Poster presentation at the 16th annual Phi Zeta Research Day, Purdue University, School of Veterinary Medicine, West Lafayette, IN.

14. Florea, M.*, Ertmer, P. A., & Nour, A. (2003, April). *Application of behavioral objectives in web-based distance education of basic medical sciences*. Poster presentation at the 16th annual Phi Zeta Research Day, Purdue University, School of Veterinary Medicine, West Lafayette, IN.

15. Ghanma, M. M.*, Ertmer, P. A., & Nour, A. (2003, April). *The importance of interactivity in web-based instruction in basic medical sciences*. Poster presentation at the 16th annual Phi Zeta Research Day, Purdue University, School of Veterinary Medicine, West Lafayette, IN.

16. Ertmer, P. A.*, Richardson, J.*, and 7 others (2003, October). *Critical characteristics of professional development coaches: Learned skills or personal characteristics*? Paper presented at the annual meeting of the Mid-Western Educational Research Association, Columbus.

17. O'Connor, D. L.*, & Ertmer, P. A.* (2003, October). *Today's coaches prepare tomorrow's mentors: Sustaining and growing teacher success*. Paper presented at the annual meeting of the Mid-Western Educational Research Association, Columbus.

18. Ertmer, P. A.*, Van Horn, M., & Hudson, H. (2004, January). *Connecting middle and high school students to their communities through the use of technology-supported problem-based learning*. Presentation at the 2004 Indiana Computing Educators Conference.

19. Richardson, J.,* Aagard, H., Ottenbreit, A., Yang, D., & Ertmer, P. A. (2004, October). *Factors that influence teachers' implementation of digital age literacy skills and strategies*. Paper presented at the annual meeting of the Mid-Western Educational Research Association, Columbus.

20. Lehman, J.*, Richardson, J.*, Ertmer, P. A.*, et al. (2005, February). *Online discussions: Fostering quality participation and enhancing student learning*. Symposium presented during the Teaching, Learning, and Technology Showcase. Purdue University.

21. Ottenbreit-Leftwich, A.[*], York, C. S.[*], & Ertmer, P. A.[*] (2005, March). *Cultivating exemplary technology integration teachers: What does it take?* Paper presented at the 2005 meeting of the Michigan Association of Computer Users in Learning, Grand Rapids, MI.

22. Kim, M.C.[*], Ertmer, P., Tomory, A., Huang, Y., Yu, J., Koca, F. (2009, February). *Simulations for science inquiry: Examples, lessons, and implications*. Paper to be presented in Hoosier Association of Science Teachers, Inc. (HASTI) 39th Annual Conference, Indianapolis, IN.

23. Lehman, J. D.[*], Ertmer, P. A., & Newby T. J. (2009, April). *Using student peer feedback in online discussion*s. Presentation at the Teaching, Learning, and Technology Showcase. Purdue University.

24. Sadaf, A., Richardson, J., & Ertmer, P. A. (2010, May). *Critical thinking in online discussions: Role of initial question prompts*. Poster presentation at the 4th Annual Graduate Student Educational Research Symposium. Awarded 1st prize.

25. Ertmer, P. A., Grant, M. M., & Mong, C. (2010, October) *Publishing for Global Impact*. Presentation during Open Access Week, sponsored by Purdue University Press, about the Interdisciplinary Journal of Problem-based Learning.

26. Loizzo, J., & Ertmer, P. A. (2013). *Integrating social media into the middle school science classroom through an electronic field trip*. Poster presentation at the annual Graduate Student Educational Research Symposium.

27. Ertmer, P. A. (2014, September). *Facilitating productive class discussions*. Presentation at the 1st annual Teaching Academy Day. Purdue University.

28. Ertmer, P. A. (2016, January). *Getting started with PBL*. Presentation at the Indiana STEM Education Conference. Purdue University, West Lafayette, IN.

3. Involvement in Graduate Research

Graduate Committees

Academic Year	Member PhD Committee	Chair Thesis Committee	Chair Masters Non-Thesis Committee	Non-Thesis Committee Member	Post Bac Advisor
1995-96	5	0	0	2	
1996-97	4	1 co-chair (PhD)	0	3	
1997-98	5	2 (PhD) 1 co-chair (PhD) 1 (MS)	0	3	
1998-1999	8	5 (PhD)	9	7	
1999-2000	10	5 (PhD)	11	3	
2000-2001	8	6 (PhD)	12	4	
2001-2002	9	5 (PhD)	6	5	
2002-2003	5	9 (PhD) 1 (MS)	4 1 (co-chair)	2	
2003-2004	3	9 (PhD) 1 (MS)	4 1 (co-chair)	1	

2004-2005	3	8 (PhD)	3	1
		1 (PhD, co-chair)	1 (co-chair)	
		1 (MS)		
2005-2006	4	7 (PhD)	3	1
		1 (PhD, co-chair)	1 (co-chair)	
		1 (MS)		
2006-2007	7	6 (PhD)	1	1
		1 (PhD, co-chair)	1 (co-chair)	
2007-2008	9	7 (PhD)	1	0
2008-2009	9	7 (PhD)	1	0
2009-2010	3	5 (PhD)	2	0
2010-2011	6	5 (PhD)	1 (co-chair)	0
		1 (MS)		
2011-2012	7	6 (PhD)	Online - 8	Online - 8	1
		1 (MS)			
2012-2013	7	5 (PhD)	Online – 22	Online - 43	2
		1 (PhD, co-chair)	F2F- 1		
		1 (MS)			
2013-2014		6 (PhD)	Online – 30	Online - 52	2
2014-2015		3 (PhD)	Online - 20	Online - 48	

Professor Ertmer supports graduate students with her expertise in technology integration, educational research, and instructional design. Participation on students' graduate committees is noted in section A.6.

a. Chair, Ph.D. Dissertations (completed)

1. Hruskocy, C. (1999). *Student trainers as resource technologists (Project START): A study on classroom interactions and use of student trainers*. Unpublished doctoral dissertation, Purdue University, West Lafayette, IN. (see B.1.a.10 and B.1.a.13 for resulting publications)

   Currently employed as a Professor of Curriculum, Instruction, and Assessment serving in the role of Associate Director for Diversity, Curriculum, and Inclusive Pedagogy at Regis University, Denver, CO and as an adjunct instructor at Capella University, an online university, based in Illinois.

2. Woods, D. (2000). *Teachers' Use of a Technology Coordinator in an Elementary School*. Unpublished doctoral dissertation, Purdue University, West Lafayette, IN.

3. Dark, M. (2000). *Exploring Systematic Relationships of Evaluation Data for a Reduced Model of Evaluation*. Unpublished doctoral dissertation, Purdue University, West Lafayette, IN.

   Currently employed as Professor and Associate Dean for Research and Strategic Planning in the College of Technology, Purdue University, West Lafayette, IN.

4. Snoeyink, R. (2000). *Experienced Teachers' Perspectives of Learning and Using Computer Technology*. Unpublished doctoral dissertation, Purdue University, West Lafayette, IN.

Currently employed as Associate Professor of Education, Trinity Christian College, Palos Heights, IL. (See B.1.a.16 for resulting publication)

5. Lane, M. M. (2002). *An Exploration of Best Practices in Graduate Teaching Assistant Mentoring Programs*. Unpublished doctoral dissertation, Purdue University, West Lafayette, IN.

Currently employed as Doctoral Dissertation Chair and Associate Professor in the School of Leadership, Education, and Communication at St. Thomas University.

6. Osika, E. (2004). *The Concentric Support Model: A Model for the Planning and Evaluation of Distance Learning Programs*.

Currently employed as Director, Center for Innovation in Teaching and Learning at Marian University, Indianapolis, IN.

7. Bai, H. (2006). *Teacher Educators' Pedagogical Beliefs and Technology Uses in Relation to Preservice Teachers' Pedagogical Beliefs and Attitudes toward Technology*.

8. Park, S. H. (2006). *Impact of Problem-Based Learning (PBL) on Teachers' Beliefs Regarding Technology Use*.

9. Macklin, A. (2007). *Integrating Information and Communication Technology (ICT) Literacy into the First Year Composition Course: Impact on Teaching, Learning Outcomes, and Assessment*.

Currently employed as Dean, Walter E. Helmke Library, Purdue University, Fort Wayne.

10. Cramer, J. P. (2007). *Perceptions of the effects of the relationship with the building principal: The story of six literacy coaches*.

Currently employed as an Associate Professor in Computer Science and Engineering at Taylor University. Upland, IN.

11, Lee, Y. (2008). *The Effects of Different Levels of Interaction on Measures of Critical Thinking* (see B.4.a.21 for PRF year-long research grant)

12. York, C. (2010). *Extracting heuristics from experienced instructional designers*. (see B.4.a.24 for PFR year long research grant; also received the Bilsland Dissertation Fellowship (2009-2010) and the Dean's Doctoral Scholarship (2009) to support her dissertation work. In 2009, Cindy received the ECT Foundation Mentor Endowment Scholarship ($3000), based on her dissertation proposal.)

Currently employed as an Associate Professor at Northern Illinois University, DeKalk, IL.

17. Mong, C. (2013). *Examining the impact of a professional development course on STEM teachers' acceptance of, and intent to implement, problem-based learning*. Received the Frank B. DeBruicker scholarship (2009) for his "strong commitment to research as evidenced by his high quality presentations."

Currently employed as a Senior Instructional Designer at Roosevelt University, Chicago, IL

18. Yu, J. H. (2014). *Development and validation of pre-service teachers' personal epistemologies of Teaching Scale (PT-PETS)*. Received the Frank L. DeBruicker scholarship (2012) for her "strong performance on key research tasks, including the

completion and reporting of basic and applied research projects." Selected to attend NSF Early Career Symposium at AECT, September 2013.

Currently employed as a Senior Learning Experience Designer at the University of Michigan.

19. Loizzo, J. (2015). *Adult learners' perceptions of MOOC motivation, success, and completion: A virtual ethnographic study*.

Employed as an assistant professor at the University of Florida.

4. Research Grants

a) Grants as principle or co-principle investigator

1) Ertmer, P. A. (March, 1994). *Reflective self-regulation as a facilitative factor in learning from case-based instruction*. Purdue Research Foundation Grant for doctoral research. Funded for 2 years at $10,800 each year.

2) Ertmer, P. A. (August, 1996). *Capitalizing on student expertise: An alternative approach to teacher technology development*. Undergraduate Research Trainee Grant, Purdue University. Awarded.

3) Ertmer, P. A. (September, 1996). *Capitalizing on student expertise: An alternative approach to teacher technology development*. Professional Development School Mini-Grant, Purdue University. Funded for $1,000.

4) Ertmer, P. A. (July, 1997). *Project START: Students Training as Resource Technologists. A technology infusion project*. Funded by the Herrick Foundation for $100,000 to support technology integration efforts at Murdock Elementary.

5) Ertmer, P. A. (August, 1997). *Students as partners in technology integration*. Undergraduate Research Trainee Grant, Purdue University. Awarded.

6) Ertmer, P. A. (September, 1997). *Students as partners in technology integration*. Professional Development School Mini-Grant, Purdue University. Funded for $500.

7) Ertmer, P. A.[*], & Sorge, D. (March, 1998). *Helping teachers envision and achieve technology integration through the use of exemplary peer models*. Multimedia Instructional Development Grant, Purdue University. Funded for $17,212.

8) Ertmer, P. A. (August, 1998). *Evaluating teachers' uses of the breakthrough to literacy program*. Undergraduate Research Trainee Grant, Purdue University. Awarded.

9) Ertmer, P. A. (November, 1998). *Technology integration and innovative teaching practices: Facilitating change through peer modeling and collaborative reflection*. Purdue Research Foundation Year-long Grant program. Funded for $11,666 plus fee remission in the first year and $13,070 plus fee remission in second year.

10) Stepich, D. A.[*], & Ertmer, P. A.[*] (1999). *Case-based instruction in post-secondary education: Developing students' problem-solving expertise*. Proposal submitted to the Committee on Organized Research (COR), Northeastern Illinois University. Funded for $2,610.

11) Ertmer, P. A. (May, 1999). *Growing 21st century visions: A model for responsive professional development*. School of Education Snodgrass Summer Grant Award, Purdue University. Funded for $4,140.

12) Ertmer, P. A. (August, 1999). *VisionQuest: Helping teachers envision and achieve technology integration*. Undergraduate Research Trainee Grant, Purdue University. Awarded.

13) Ertmer, P. A. (December, 1999). *Library Scholars Grant Program.* $100 (with matching funds from the Department of Curriculum and Instruction).

14) Ertmer, P. A., & Johnson, T. E. (January, 2001). *Building visions/transforming practice: Scaffolding teachers' technology integration efforts.* Course development grant funded IHETS/IPSE for $19,240

15) Nour, A. Y. M., & Ertmer, P. A. (March, 2001). *Development of cross-disciplinary education program in basic medical sciences (physiology) and recruitment of graduate students.* Proposal submitted to the 2001-2002 Special Initiatives Fellowship/Assistantship Program. Funded for $12,855

16) Stepich, D. A., & Ertmer, P. A. (January, 2002). *Online case discussion: Methods for developing students' instructional design (ID) skills*. Proposal submitted to the Northeastern Illinois University Foundation, 2002 Faculty Research and Scholarly Project Grant Program. Funded for $2,769.

17) Ertmer, P. A. (March, 2002). *Impact of vicarious learning and goal setting on preservice teachers' self-efficacy for technology integration*. Proposal submitted to the Purdue Research Foundation Year-long Grant program. Funded for $13,140 plus fee remission. Renewed January 2003; Reactivated August 2004 for $13,202 plus fees.

18) Ertmer, P. A. (December, 2003). Online course development proposal: *EDCI 591W: Educational applications of the World Wide Web. Proposal submitted to the Online Course Initiative*, Department of Curriculum and Instruction, Purdue University. Funded: 4-weeks summer pay.

19) Ertmer, P. A. (March, 2004). *International travel grant.* Purdue Research Foundation, Purdue University. Funded: $1,981.

20) Ertmer, P. A. (February, 2005). *Impact of problem-based learning on teachers' beliefs regarding technology use*. Proposal submitted to the Purdue Research Foundation Year-long Grant program. Funded for $13,776 plus fee remission.

21) Ertmer, P. A. (March, 2006). *Relationships between the unique characteristics of asynchronous online discussions and quality of critical thinking.* Proposal submitted to the Purdue Research Foundation Year-long Grant program. Funded for $14,041 plus fee remission.

22) Richardson, J., Ertmer, P. A., and others (July, 2006). *Increasing access to quality learning through effective use of peer feedback in online discussions*. Fund for the Improvement of Post-secondary education (FIPSE). Funded for $497,135.

23) Ertmer, P. A. (February, 2008). Supplemental travel award. Department of Curriculum and Instruction. Funded: $500

24) Ertmer, P. A. (February, 2008). Strategic initiative. Dean's Faculty travel support. Funded: $500.

25) Ertmer, P. A. (March, 2008). *Extracting rules of thumb from expert instructional designers*. Proposal funded by the Purdue Research Foundation Year-long Grant program. Funded for $14,772 plus fee remission.

26) Ertmer, P. A., & Stepich, D. A. (March, 2008). Impact of guidelines on students' case analysis efforts. Proposal submitted to the North American Case Research Association for $10,000. Not funded.

27) Ertmer, P. A. (April, 2008). Collaborating with Turkish faculty and students to create an international community of learning. Study Abroad and International Learning Grants. International Programs, Purdue University. Funded for $6500.

28) Ertmer, P. A. (June, 2008). International travel grant. Purdue Research Foundation. Funded: $1000.

29) Ertmer, P. A. (May, 2011). Teaching Academy Education Travel Grant. Funded for $500.

30) Ertmer, P. A. (August, 2012). Teaching Academy Education Travel Grant. Funded for $1000.

b) Grants as a member of the investigative/development team

1) Walker, J. J.[*], Nour, A. Y. M.[*], Coppoc, G., Ertmer, P. A., & Elmagarmid, A. (March, 1998). *Development of an interdisciplinary bilingual web-based instructional program for teaching basic medical sciences using case-based learning strategies*. Multimedia Instructional Development Grant, Purdue University. Funded for $15,000.

2) Nour, A. Y. M.[*], Coppoc, G., Wall, E., Gumaa, A., Schoenlein, W., Ertmer, P. A. (September, 1999). *Virtual physiology laboratory for biomedical students, veterinary technicians, and medical assistants in the state of Indiana*. Course Development grant submitted to IHETS/IPSE. Funded for $11,060.

3) School of Education, PT^3 Task Force. (March, 2000). *P^{3}T^3: Purdue Program for Preparing Tomorrow's Teachers to use Technology*. Proposal submitted to the United States Department of Education, PT^3 Challenge Implementation Grant Program. Awarded for $1.1 million.

4) Lamar, C. H., Nour, A., Ertmer, P. A., Gumaa, A. (March, 2000). *Creation of an Internet-based distance learning course to help agricultural students learn production animal techniques*. Multimedia Instructional Development Grant, Purdue University. Funded for $16,082.

5) Nour, A. Y. M.[*], Coppoc, G., Ertmer, P. A., Gumaa, A., Schoenlein, W. (March, 2000). *Virtual physiology laboratory course for students in basic medical sciences curricula in the state of Indiana*. Multimedia Instructional Development Grant, Purdue University. Funded for $16,936.

6) Crawfordsville Community Schools (June, 2000). *Tech-Know-Build: Indiana students building knowledge with technology*. U.S. Department of Education: Technology Innovation Challenge Grant. Funded for $9.5 million; Purdue's portion = $656,000.

7) Shively, G. E., Sammons, D., Ertmer, P. A., Van Fossen, P. J., Ha, D. T., & Boc, C. B. (2003). *Curriculum development for improved environmental management in*

Vietnam. United States Agency for International Development (USAID). Funded for $167,485.

8) Richardson, J., Akridge, J., Bill, R., Campbell, J., Ertmer, P. A., Newby, T. J., Lehman, J., & Swain, P. (2004). *Socially constructed knowledge in online learning environments: Student scaffolding strategies and peer feedback in discussions*. Discovery Learning Center Seed Grant. Funded for $17,231.

9) Newby, T. J., Ertmer, P. A., & Richardson, J. C. (2006). *Increasing Student Participation and Cognitive Engagement Within Large Lecture Courses Using a Case Based Repository*. TLT Digital Content Development grant. Funded for $14, 870.

10) Ertmer, P. A., Uruk, A., & McInerney, W. (2007) Global Partnership for Partnerships in Turkey. International Programs, Purdue University. Funded for $4200.

11) Newby, T. J., Watson, W., & Ertmer, P. A. (January, 2009). Increasing levels of international understanding: A project-based learning experience using Web 2.0 applications. Program for Instructional Innovations, Purdue University. Funded for $37,975.

12) Watson, W., Newby, T. J, Ertmer, P. A., & Kim, M. (April, 2009). Faculty Visit to South Korea to Extend International Collaboration. International Programs, Purdue University. Funded for $8,805.

13) Sands, T. and others (August, 2010-August, 2015). *A Sustainable Energy Concepts Professional Dev. Model for Rural Schools & its Extension to a Systemic Approach for Integrating STEM Research & Education*. Proposal submitted to the National Science Foundation. Funded for $502,378 (first two years).

14) Leary, H., Ravitz, J., Bradley-Levine, J., Ertmer, P., & English, M. (2014, January). Assessing the qualities of problem- and project-based learning: Converging on K-12 education research and practice. Proposal submitted to AERA for $34,739 to support a mini-conference dedicated to PBL research and practice. Not funded.

c) Grant proposals submitted/under review

1) Leary, H., Bradley-Levine, J., English, M., & Ertmer, P. A. (2014, September). Improving K-12 Problem-based Learning: The Intersection of Research and Practice. Revised proposal (see b14 above) submitted to AERA for $34,934 to support a mini-conference dedicated to PBL research and practice.

5. **Research Studies** (completed and in progress)

a) *Effects of Experience on Perceived Self-Efficacy for Computer Technologies*, January - May 1993

> I investigated the effects of experience on attitudes toward computers and judgments of confidence, or self-efficacy, for the specific computer technologies of word processing and e-mail. Treatment conditions required the students to communicate with the instructor via e-mail, a word processed note, or handwritten note. These conditions manipulated experience with e-mail and word processing while keeping instructor-student interaction constant. Students' judgments of computer capability significantly increased from pretest to posttest across all conditions. A direct relationship between time-on-task and levels of confidence was not found, suggesting that "quality" rather than "quantity" of computer experience may be most critical.

b) *Evaluation of Student Success Skills Course*, March 1994 - May 1995

> As a member of a research team, I collaborated with the Tippecanoe School Corporation to design and evaluate a required 9th grade study skills course under the direction of Dr. Tim

Newby. Suggestions made at the end of the school year led to important changes in the course content and implementation for the following school year.

c) *Attitudes toward Pre-service Preparation, Licensure, Induction, and Professional Development*, Summer 1995

Completed qualitative data analysis on results of open-ended survey questionnaire utilized by the Indiana Professional Standards Board. Presented and clarified results to Board.

d) Dissertation: *Learning from Case-Based Instruction: The Role of Perceived Value, Learning Orientation, and Reflective Self-Regulation*, January 1994 - December 1995

I combined quantitative and qualitative methodology to examine the relationship between specific types of learners (high and low self-regulated) and their responses and approaches to learning from case-based instruction. In-depth interviews were conducted with nine freshman veterinary students who were recently introduced to case-based instruction. Using a constant comparative method of analysis, I identified three themes that described students' responses and approaches to the case method of teaching. These themes revolved around 1) the value that students assigned to the case method of teaching, 2) the types of goals and evaluation criteria they used to focus their learning efforts, and 3) the manner in which they used self-regulation strategies to approach case-based instruction.

e) *Self-Regulation and Computer Skills Acquisition: The Role of Study Strategies and Achievement Beliefs*, September 1995 – August 1997

In collaboration with Dr. Dale Schunk, I conducted a series of research studies that investigated the relationships among students' achievement beliefs, use of self-regulation learning strategies, and the learning of computer skills. Data were gathered from students enrolled in an Introductory Educational Computing course (for three semesters) in the form of learning surveys, semi-structured interviews, pre- and posttest skills testing, and a final portfolio project submitted for course credit. Assessment on one-three computer applications were completed: PowerPoint, Hypercard, and/or Excel. Results indicated that infrequent self-evaluation was more beneficial for self-efficacy and self-regulation in the presence of learning goals.

f) *Project START: Student Trainers as Resource Technologists*, August 1996 – December 1998

As part of Purdue's PDS partnership with Murdock Elementary, I coordinated the efforts of a team of teachers, graduate, and undergraduate students to facilitate technology integration at Murdock and to evaluate the effectiveness of our integration efforts. Data were collected from teacher and student interviews, questionnaires, and observations. During the 1996-97 and 1997-98 academic years, this research was supported by a PDS Mini-Grant and the assistance of an Undergraduate Research Trainee, as well as a $100,000 gift from the Herrick Foundation. Results from the first-year were inconclusive; teachers perceived greater use than the students or the researchers. Data from the second year suggested that teacher' beliefs about what constituted effective classroom practice influenced their responses to external barriers in the environment and their ability to achieve effective use. Data from the third year comprised a student's doctoral dissertation and focused on student and teacher interactions surrounding the use of student trainers.

g) *Evaluating Teachers' Uses of the Breakthrough to Literacy Program*, August 1998 – May 1999

In collaboration with Charles Elster and Jill May from the Department of Curriculum and Instruction, Carolyn Mohr, the Literacy Specialist for Essential Skills in the Lafayette School Corporation (LSC), and 10 LSC kindergarten and first grade teachers, I examined how a new early literacy program, with a strong technology component, was implemented in teachers' classrooms. Data were collected via classroom observations, administrator (superintendent, curriculum director, principals) and teacher interviews, as well as examination of instructional materials and training approaches. A final report was submitted to the Superintendent, Curriculum Director, and Literacy Specialist in May, 1999. This

report outlined teachers' perceptions of the effectiveness of the program and also summarized our own perceptions of the advantages and disadvantages to the program.

h) *Helping Teachers Envision and Achieve Technology Integration Through the Use of Exemplary Peer Models*, Spring 1998 – Summer 2001

The purpose of this research and development project was to assist current and future educators to envision and achieve integrated technology use by providing access to models of technology-using teachers. A CD-ROM was created that featured six exemplary technology-using teachers from across Indiana. The CD-ROM was designed so that users could examine both the pedagogical beliefs and classroom practices of the selected teachers. Materials are currently being used in our introductory computing courses with both pre- and inservice teachers. Research has been conducted to determine the effectiveness of this product on teachers' confidence and competence for technology integration.

i) *Online Professional Development: Building Administrators' Capacity for Technology Leadership*, Fall 2001 – Fall 2002

This research examined changes in administrators' ideas about technology integration and technology leadership while participating in an online professional development course. Eight administrators, enrolled in a semester-long course during the fall semester (2001), participated in 15 discussion forums related to k-12 technology implementation issues. Pre- and post-course surveys indicated significant changes in ideas about technology integration as well as methods used to support teachers' integration efforts. Analysis of interview and course discussion data suggests that administrators view technology leadership as a "shared responsibility" that requires both administrative skills and technical knowledge.

j) *The Effect of Electronic Modeling on Preservice Teachers' Self-Efficacy for Technology Integration*, Fall 2000 – Fall 2002

The purpose of this research project is to examine the extent to which preservice teachers' ideas about, and self-efficacy for, technology integration can be increased through the use of electronic models presented via VisionQuest, a CD-ROM teacher development software program. Data were collected from 69 preservice teachers, before and after working with VisionQuest, during the fall semester of 2000. Quantitative results indicate significant increases in both ideas about and self-efficacy for technology integration. Qualitative date suggest that preservice teachers found the electronic models to be both realistic and relevant.

k) *Case-based Instruction and the Ability to Solve Ill-Structured Problems*, Spring 1998 - 2000

This research comprised a series of qualitative studies that examined the changes that occurred in students' case analysis approaches as they gained experience solving ill-structured problems presented via instructional design case-studies. Data were gathered from advanced ID students during the spring semesters of 1998, 1999, and 2000. In collaboration with a colleague at Northeastern Illinois additional data were gathered from a group of NEIU undergraduate students during the spring semester, 1999 and a group of NEIU graduate students in Spring, 2000. Results outlined: 1) How problem-solving and decision making skills of beginning instructional designers changed during case-based instruction 2) How observed changes compared to the development of expertise described in the literature and 3) How students with different levels of experience compared in their approaches and their subsequent development during case-based learning.

l) *Digital Age Literacy Coaching: Impacts of a 3-year professional development initiative*, Fall 2002 - 2004

This project was initiated in partnership with Lawrence Township in Fall 2002. As part of this initiative, the district identified and trained 34 master teachers to serve as digital age literacy coaches, who supported teachers as they implemented new digital age literacy strategies in their classrooms. Initial research examined the transformation process that master teachers went through to become effective teacher coaches and identified factors (personal, administrative, training) that facilitated or hindered the change process (see 1.a.26, 29 for related publications). A follow up study examined factors that influenced classroom teachers' participation in the professional development activities (see 1.a.33).

m) *Impact of vicarious learning experiences on preservice teachers' self-efficacy for technology integration* Fall 2005 - Fall 2006

> Building on previous work with VisionQuest (see h. & j. above), we are exploring how collaborative learning activities and question prompts enhance the effectiveness of vicarious experiences focused on increasing preservice teachers' self-efficacy for technology integration. Previous research has demonstrated the effectiveness of this product on teachers' confidence and competence for technology integration. Current efforts are designed to determine if we can increase the impact of these vicarious experiences by combining them with question prompts, group discussion, or both. (See B1.a.33 for related publication, 2.a.78 and 2.a.88 for related presentations).

n) *Tech-Know-Build: Indiana Students Building Knowledge with Technology*, Fall 2000 – Spring 2007

> As part of a 5-year Challenge Grant awarded to Crawfordsville Community Schools, this ongoing research examines the impact that a problem-based learning approach to professional development has on inservice teachers' adoption and use of computer-based technologies in the middle school classroom. Data were collected from teachers enrolled in a professional development course during the Fall 2000 and during 2 subsequent summer institutes (2001, 2002). Problems were noted in terms of teacher implementation of problem-based learning units; new strategies are being developed to address issues related to adoption and use (see 1.a.1.29, 31-32 for related publications). Although funding ended in August 2006, research efforts continue. Current efforts focus on examining the differences in high- and low self-directed learners in terms of achievement and responses to PBL (see 2.a.61, 71, 74, 82, 86, 89 for related presentations).

o) *Increasing student learning during online and/or case-based discussions through use of instructor and peer feedback*, Fall 2003 – Fall 2010

> Building on previous efforts (see 5.k above), this research is designed to examine changes in students' learning (higher-order thinking; problem-solving skills) as they participate in discussions (online and/or case-based) in which they receive quality feedback from either instructors or peers. Specific efforts related to this include: 1) examining the development of students' expertise in a case-based course, as measured by changes in problem-solving skills; 2) examining changes in students' online postings after receiving quality feedback from either instructors or peers; and 3) examining the relationship between students' sense of community and higher order learning in online courses (see B.1.a.31, 39 for related publication). Efforts in 2010 included guest editing a special issue of JECR, related to the use of technology-mediated feedback and publishing an article in the issue (see B.1.a.50)

p) Current Research: *Transforming students' international experiences through the use of Web 2.0 tools*, Fall 2008 – Spring 2011

> Continue research investigating students' perceptions of, and motivation for, creating a wiki chapter about a specific Web 2.0 tool, in collaboration with international partners. Completed tasks related to: soliciting participation from international partners, securing human subject approval, and creating data collection instruments. Survey, interview, and project artifact data are collected each semester. We are currently analyzing data from Spring 2009, to be presented at AERA in 2010. Efforts in 2009 included writing grants (PRF, CCLI, Discovery Seed Grant) to support additional work on the project. Efforts in 2011 included publishing two articles based on this research (see B.1.a.54 and 55).

q) Current Research: *Reasoning from cases: Expert-novice approaches to solving ill-structured problems*, Spring 2005 – current

> In 2013, I began a new series of studies with Adrie Koehler in which we are examining the problem-space covered by students in an online case discussion. This work continues and was presented at both AECT and AERA in 2013 and 2014. Additionally, I worked with Rudy Rico to write a lit review related to facilitation skills required for successful case-based learning. This is in press in TechTrends.

r) Current Research: *Examining the relationship between teachers' beliefs and their technology integration practices*, Spring 2011 – ongoing

> Efforts in 2013-14 included writing a chapter for the International Handbook of Research on Teacher

Beliefs, which was just published. Current efforts (2014) are focused on writing a meta-synthesis of the qualitative evidence available that explicates the relationship between teacher beliefs and technology use. This will be submitted to ETRD.

6. **Other Evidence of National Recognition**

   a) Editorial consultant for the research section of *Educational Technology Research and Development*. October 1995 to present

   b) Editorial consultant for the development section of *Educational Technology Research and Development*. October 1996 to present

   c) Editorial board member for the research section of *Educational Technology Research and Development*. February 1998 to February 2001; 2011 - 2013

   Determine board editorial policy and select section editor(s) when vacancies occur. Establish journal departments, appoint and terminate department editors, and recommend consulting editors to review manuscripts. Solicit and review manuscripts and provide suggestions regarding the publication of special issues.

   d) Advisory board member for the *Encyclopedia of Education Technologies* to be published by ABC-CLIO in 2001, edited by Ann Kovalchick (Ohio University) and Kara Dawson (University of Florida). May 2000 – January 2004

   Review headword list, evaluate problematic entries, offer suggestions for possible contributors.

   e) Academic editorial consultant for Merrill and the Association for Supervision and Curriculum Development (ASCD). Fall 2000

   Review articles from Educational Leadership, make recommendations for top 10-15 to be included on a joint website offered by Merrill and ASCD

   f) Editorial board member for the development section of *Educational Technology Research and Development*. January 2001 to December 2003; 2006-2008

   Help determine board editorial policy and select section editor(s) when vacancies occur. Establish journal departments, appoint and terminate department editors, and recommend consulting editors to review manuscripts. Solicit and review manuscripts and provide suggestions regarding the publication of special issues.

   g) Contributing editor for *Educational Technology Magazine*. January 2002 - present

   Contribute yearly articles to Educational Technology.

   h) Guest reviewer for *Teaching and Teacher Education: An International Journal of Research and Studies*. October-November 2002

   i) Invited speaker — Faculty Instructional Technology Summer Institute (June, 2003). University of New Hampshire.

   Presented a 1-hour spotlight session, via video conferencing, to faculty participating in a technology summer institute. The session was entitled: Coaching online discussions: Promoting student-to-student interaction.

   j) Editor for the *Interdisciplinary Journal of Problem-Based Learning*, a peer reviewed, online periodical concerned with the theory and practice of PBL. May 2004 - present. (First issue published in Spring 2006)

   k) Invited speaker — Academic Staff Development Program (June, 2004). University of Southern Queensland.

   Co-presented a 3-hour workshop, with Peter Albion, to faculty and staff participating in an academic development program dedicated to tertiary teaching, learning, and research development. The session was entitled: *Online courses: Models and strategies for successful design*.

m) Invited speaker — Faculty of Education Research Seminar (June, 2004). University of Southern Queensland.

Presented a 1-hour seminar to the faculty of education entitled, *Inducting Graduate Students into Research Practice via an Apprenticeship-Mentoring Model*.

n) Guest reviewer — Special Issue: Situated technology professional development. *Educational Computing Research*. December 2004 - January 2005.

o) Review Board Member — *TechTrends*. January 2005 – December 2008.

p) Review Board Member — *International Journal of Teaching and Learning in Higher Education*. February 2005 - February 2007.

q) Guest reviewer. *Instructional Science*. Spring 2008

r) Guest reviewer. *Journal of Computer Assisted Learning*. Spring 2008

s) Guest reviewer. *Transactions on Learning Technologies*. Fall, 2008.

s) Editorial reviewer. *Journal of Educational Computing Research*. Fall 2008 – present

t) Invited speaker. *Research in Instructional Design*. Ewah Woman's University, Seoul, Korea. Spring 2009

u) Special Issue co-Editor. *Journal of Educational Computing Research*. Summer 2009– May 2010

v) Guest reviewer. *Cognition and Instruction*. Fall 2009.

w) Guest Reviewer. Journal for Research in Mathematics Education. May, 2010.

x) Grant Proposal Reviewer. *Social Sciences and Humanities Research Council of Canada*. February 2010

y) Invited speaker. *Group-based and Inquiry Learning for Secondary Schools*. Professional Development Workshop for Teachers at John Scottus School with conjunction with Bridge to College Project (Suas and Trinity College Dublin). Dublin, IR. [attended by 17 teachers] May 2010

z) Associate Editor. Design Principles and Practices: An International Journal. Spring – Fall, 2011.

aa) Guest Reviewer. *Asia Pacific Journal of Education*. Spring 2011.

bb) Reviewer. *Instructional Science*. Fall 2013 – present

cc) Guest Reviewer. Journal of Purdue Undergraduate Research. February 2013.

dd) Reviewer. Society for Research on Educational Effectiveness conference. Spring 2013.

ff) External Reviewer. *Proposal for Innovational Research Incentive Scheme* for potential funding by the Netherlands Organization for Scientific Research (NOW). December 2013.

gg) Served as a content expert for a series of videos on Project-based Learning, created by Edutopia in June 2014. See the following videos in which I appear as the expert.
   a. Five Keys to Rigorous Project-based Learning - http://www.edutopia.org/video/five-keys-rigorous-project-based-learning
   b. Establishing Real-World Connections in Projects - http://www.edutopia.org/video/real-world-connections-keys-pbl-series-1
   c. Building Rigorous Projects that are Core to Learning - http://www.edutopia.org/video/core-to-learning-keys-pbl-series-2

d. Structuring Collaboration for Students Success - http://www.edutopia.org/video/structured-collaboration-keys-pbl-series-3
e. Facilitating Learning in a Student-Driven Environment - http://www.edutopia.org/video/student-driven-learning-keys-pbl-series-4
f. Embedding Assessment throughout the Project - http://www.edutopia.org/video/multifaceted-assessment-keys-pbl-series-5

hh) Appointed to the Executive Council of the Teaching Academy, Purdue University (Fall 2014 – present)

ii) Special Issue, Co-Editor (2016). Online learning from the instructional designer's perspective: Canadian and European French-language case studies. *Canadian Journal of Learning and Teaching, 41*(4).

jj) Special Issue, Co-Editor (2019-2020). *Role of theory in learning design and technology*. Educational Technology Research and Development.

C. EXTENSION, SERVICE, AND UNIVERSITY OUTREACH ACTIVITIES

1. **Translating Research into Practice**

Ertmer has developed and conducted the following presentations and workshops for local teachers, university staff, and/or undergraduate organizations. Sample presentations include:

- *Facilitating Apprenticeship Experiences through the Use of Distance Education Technologies*. Presentation at the Conversation About Teaching Forum, Purdue University, March 2002

- *First- and Second-Order Barriers to Technology Integration*. Online presentation/interaction with graduate students at Texas A&M University, facilitated by Susan Pederson, PhD. April 2003

- *Tech-Know-Build: Indiana students building knowledge with technology*. Poster session presented to President Jischke during his annual visit to the School of Education - Purdue University, December 2003

- *Instructional Design for Teaching Information Literacy*. Invited presentation at the annual Educational Librarian Retreat, Purdue University (May, 2004).

- *Getting your Students to Think Using Class Discussions*. Invited presentation at the College Teacher Workshops (Series 2), Center for Instructional Excellence (October, 2004).

- Simons, K. D., Ertmer, P. A., & Lehman, J. *Tech-Know-Build: Teaching and learning in the middle grades*. Poster presented to Provost Mason during her first annual visit to the School of Education - Purdue University (December, 2004).

- Ertmer, P. A., & Richardson, J. C. *Scaffolding student learning through peer-rated online discussion*. Poster presented at the annual C&I Faculty Retreat. (August 2005).

- Ertmer, P. A. *Strategies for teaching online*. Presentation to the DeVito Scholars. (January 2007).

- Ertmer, P. A., & Ciftci, A. *International education: Turkish possibilities*. Brown bag seminar presentation to the College of Education. (October 2007)

- Ertmer, P. A. *Problem-centered instruction: Getting started with case- and problem-based learning*. Seminar presented to faculty of the School of Pharmacy and Pharmaceutical Science. February 2010.

- Ertmer, P. A. *Webinar: Implementing PBL*. Presented to 4 inservice teachers across the state.
- Ertmer, P. A. *Getting Started with PBL*. Workshop presentation to IMPACT faculty. February 2012.
- Ertmer, P. A. *PBL: Keys to Success*. Follow-up workshop presented to 25 Attica teachers. April 2012.
- Ertmer, P. A. (2015, January). *Getting Started with Project-based Learning*. Workshop presentation to the Board of Trustees at St Patrick's Episcopal Day School. Washington DC.
- Ertmer, P. A. (2015, January). *Project-based Learning: How does it align with your vision for St. Patrick's EDS Middle School*. Workshop presentation to the Board of Trustees at St. Patrick's Episcopal Day School. Washington DC.

2. **Student Mentoring**
   a) Currently serve as Chair or co-chair of 5 doctoral dissertation committees and as Chair of 1 Masters committee. Serve as a member on 7 doctoral dissertation committees. Also serve as the chair of 22 online masters students' committees and as a member of 43 committees.
   b) Review admission folders of graduate students seeking admission to Educational Technology. Fall 1997 to present
   c) Dissertation examiner for Peter Albion, University of Southern Queensland, Australia; Dr. Perc Marland (dissertation supervisor). Summer 2000
   d) Dissertation examiner for Sue Bennett, University of Wollongong, Wollongong, Australia. Dr. Barry Harper (dissertation supervisor). Summer 2002
   e) Dissertation examiner for Thomas Otto, University of Southern Queensland, Australia; Dr. Peter Albion (dissertation supervisor). Fall 2002-Spring 2003
   f) Dissertation examiner for Sarah Howard, University of Sydney, Australia; Dr. Peter Goodyear (dissertation supervisor). Spring 2009
   g) Ertmer, P. A. *Crafting a high quality poster presentation: Attending to content and delivery*. Presentation to the Graduate Students in Education Council. January 2010
   h) Ertmer, P. A. *From the editor's view: Insights about the publication process*. Presentation to the Graduate Students in Education Council. September 2010
   i) Review admission folders of students applying for our online masters program. Fall, 2011; Summer 2012; Spring 2013; Summer 2013; Fall 2014

3. **Colleague Mentoring**
   a) *Evaluation Consultant*, October 1997 to December 2000

   Rabi Mohtar & Bernard Engel, Department of Agricultural & Biological Engineering, Purdue University, West Lafayette, IN

   Serve as a research consultant to two professors designing and implementing a World Wide Web Soil and Water Quality Model (supported by a Multimedia Instructional Development grant)

   b) *Instructional Designer and Evaluation Consultant*, December 1997 to June 2008

   Abdelfattah Nour, Basic Medical Sciences, Purdue University, West Lafayette, IN

Serve as a research consultant to professors designing and implementing an interactive Web-based instructional program that integrates case-based learning in the teaching of human anatomy to freshman medical students in Indiana (proposal to the Indiana Higher Education Telecommunication System; IHETS)

c) *Instructional Designer and Research Consultant*, March 1998 – May 1998

Steve Rans, School of Aviation Technology, Purdue University, West Lafayette, IN

Serve as a research consultant to Professor Rans on development of Knowledge Distributed Intelligence proposal (NSF), entitled, "Constructing first-order connectivity: Linking cognitive and pedagogical constructs through the use of information technologies."

d) *Founding and Contributing Member*, Educational Technology Writing Group, October 2002 - 2003

Founding member of a peer-writing group consisting of Ed Tech faculty members and ITAP personnel, including the Director of ICS, focused on exploring ways to convert effective face-to-face teaching strategies into online learning methods and tools.

e) *Faculty Mentoring Network*, 2003

Teaching Academy, Center for Instructional Excellence, Purdue University, West Lafayette

Serve as a volunteer mentor for faculty who are seeking assistance with various aspects of teaching. Members of the mentoring network are selected from among those faculty who have received awards for outstanding teaching.

f) Evaluator, April - October 2005. Evaluation Model for Online Educational Resources.

Served as one of five expert evaluators asked to validate an evaluation model, for use with online educational resources, developed by Ann Ooms at the University of Minnesota. Provided feedback during two stages of development and validation.

g) Evaluator, September - November, 2005. Motivating Opportunities Model.

Served as an expert evaluator of a new model of motivation for instructional design, developed by Patricia Hardre and Raymond Miller at the University of Oklahoma, Instructional Psychology and Technology Program.

h) Tech Team Advisory Member, January - February 2007. West Virginia State Department of Education

Participated on a national advisory board to provide the West Virginia state department of education with suggestions for developing requirements for a new technology proficiency assessment for students.

i) Review Panel Member, March - May 2007. Michigan State University.

Participated on a panel to review an NSF grant at MSU that used Problem-based learning as a professional development approach. The goal was to assess progress being made toward research goals and to determine if the research will provide adequate information about the efficacy of the PBL model.

j) Research and project consultant. *Leveraging Technology to Keep America Competitive*. $3.1 million dollar grant awarded to the Center for Evaluation and Education Policy (Indiana University) by the U. S. Department of Education. January 2008 – June 2008.

k) Research consultant. Kids as ecoscientists. Proposal submitted to the National Science Foundation by Krista Glazewski, New Mexico State University. February 2009.

l) Research consultant. *Problem-based learning within gaming environments*. Proposal submitted to the National Science Foundation by Andrew Walker and Brett Shelton, Utah State University. Summer 2009.

m) Research consultant. *E(arth)ducation: Design, development, and implementation of a K-12 user-driven adventure learning online collaborative environment*. Proposal submitted

to the Department of Education, Institute for Education Sciences by Aaron Doering, Charles Miller, and Cassie Scharber, University of Minnesota. September 2009.

n) Academic Program Reviewer. *Nova Southeastern Online Doctoral Program in Computing Technology in Education*. February 2010. Provided a peer review of the program after reviewing internal reports and meeting with relevant stakeholders during a site visit.

o) Lead Faculty on promotion and tenure team to prepare and present documents related to the nomination of Chrystal Johnson for promotion to Associate Professor. Fall 2010.

p) Faculty team member on promotion and tenure team to prepare and present documents related to the nomination of Minchi Kim for promotion to Associate Professor. Fall 2012

q) Academic Program Reviewer. Walden University Online Doctoral Program in Education. August 2014. Provided a peer review of the program after reviewing internal reports and meeting with relevant stakeholders during a site visit.

r) Advisory board member. *Imagining the possibilities: Envisioning problem-based learning (PBLvis) through an enhanced videocase toolkit*. Proposal submitted to the National Science Foundation by Cindy Hmelo-Silver, Krista Glazewski, and Tom Brush. Indiana University. January 2105.

4. **University or Department Service**

— Member of Elementary Education Committee, Department of Curriculum and Instruction, Purdue University. August 1996 – June 1999

— Co-chair of JrMents, a School of Education mentoring network comprised of junior faculty, Purdue University. September 1996 – December 1999

— Co-advisor of Purdue Student Education Council, Purdue University. September 1997 – May 1998

— Member of the School of Education Committee to choose the winners of the Purdue Research Foundation Grants (year-long and faculty summer), Purdue University. November – December 1999

— Member, Faculty Affairs Committee. April 2001 – May, 2004; August 2006 – June 2008

— Member of the Educational Technology Faculty Search Committee, Purdue University. October 2001 – March 2002

— Chair-elect of the Curriculum and Instruction Graduate Committee, Purdue University. Fall 2002 – Spring 2003

— Member, Nominations and Elections Committee, Purdue University. Fall 2002 – Spring 2004

— Associated Faculty, Gifted Education Resource Institute, Purdue University. Fall 2002 – present.

— Co-chair of the Educational Technology Faculty Search Committee, Purdue University. August 2002 – April 2003

— Member of the School of Education Committee to choose the winners of the Purdue Research Foundation Grants (year-long and faculty summer), Purdue University. December 2002

— Affiliated Faculty, Reading Recovery Council of North America, Purdue University. Spring 2003 – present

— Participated in the Associate Professor Focus Group addressing the nature and significance of faculty development and review. University Faculty Affairs Committee, Purdue University. Spring 2003

— Faculty advisory board member for Information Technology at Purdue (ITAP), Instructional Computing Services. Fall 2003 – Fall 2006

— Member of the Campus Grievance Appeals Committee, Purdue University. June 1, 2003 – May 31, 2005

— Chair, Curriculum and Instruction Graduate Committee, Purdue University. Fall 2003; Fall 2004-Spring 2005

— Member of the Grievance Committee, College of Education - Purdue University. Fall 2003 – Summer 2005.

— Chair, Nominations and Elections Committee, Purdue University. Fall 2004 – August 2005

— Affiliated Faculty, Discovery Learning Center, Purdue University. January 2004 – present

— Member, Curriculum and Instruction Promotion and Tenure Committee. Fall 2004 - present

— Member of the College of Education Committee to choose the winners of the Purdue Research Foundation Grants (year-long and faculty summer), Purdue University. January 2005

— Chair, Educational Technology Search Committee. August, 2006 – April, 2007

— Member, Elementary Education Committee, Curriculum and Instruction. Fall 2006 — May 2009

— Participant in C&I Panel Discussion: Tips for Working with an Advisor. October, 2006

— Member, Faculty Affairs Committee. August, 2006 — August, 2007; Chair, Faculty and Graduate Student Teaching Awards (January, 2007)

— Chair, Faculty Affairs Committee. August 2007 – May 2008

— Member, Leadership Committee, Curriculum and Instruction. August 2007 – May 2008

— Representative to COE graduation reception. December, May, August 2006

— Chair, Educational Technology Program Area. January 2007 - June 2007

— Member, Grievance Committee, College of Education. August 2007 – May 2008

— Member, Search Committee - P-12 Engagement Center Director. March 2007 – March 2008

— Participant in C&I Panel Discussion: Managing your Time as a Faculty Member. February, 2007

— Participant in C&I Panel Discussion: Chairing a Graduate Student's Committee. April, 2007

— Participant, Graduate Student Orientation, College of Education, August 2007

— Member, Engineering 2020 Committee. September 2007 – May 2010

— Member, Curriculum Committee, College of Education. November 2007 – August, 2010

— Member, Area Promotion and Tenure Committee. August 2008 — December 2010

— Member, Grade Appeals Committee, College of Education. Fall 2007 — August, 2010

— Participant, Scholarship of Engagement Workshop. March 2008

— Participant in C&I Panel Discussion: Tips for Developing a Coherent Research Plan. April, 2008

— Participant, Graduate Student Orientation, College of Education, August 2008

— Member, C & I Tiger Team, May 2008 – Fall 2008. Committee formed to respond to results of the External Review Team and to make recommendations to the C&I faculty.

— Member, C&I, Ad Hoc Committee – Course Development Team, 2009 – August 2010

— Participant in C&I Panel Discussion: Tips for Managing Your Time as a Faculty Member. April, 2009

— Judge, Annual Graduate Student Educational Research Symposium. April, 2010.

— Participant, Graduate Student Orientation, College of Education, August 2010

— Chair, Nominations and Election Committee, August, 2011 – May 2012

— Faculty Representative, Commencement, August 2010

— Member, University Senate, August 2010 – May 2013

— Member, Educational Policy Subcommittee of the University Senate, August 2010 – May 2013.

— Chair, Learning Design and Technology Search Committee for clinical assistant faculty member. August 2011 – April 2012.

— LDT Chair, DeBruicker Award selection committee. February 2010, 2011, 2012

— Member, University Promotion and Tenure Committee Task Force. Fall, 2011 - December 2012
  o Member, Teaching and Learning Subcommittee
  o Member, Post-tenure Review Subcommittee

— Member, Learning Design and Technology Search Committee for tenure-track assistant professor. October 2012 – March 2013

— Reviewer. PRF research proposals. College of Education. January 2013

— Participant in COE Panel Discussion: Tips for Managing Your Time as a Faculty Member. January 2013

- COE Faculty Mentoring Committee, Senior Faculty Member. September 2013 – present
- Judge, Annual Graduate Student Educational Research Symposium. March 2013.
- Faculty Participant, Commencement, May and December, 2013
- Faculty Representative, Commencement Reception, May, August, December, 2013
- Faculty Representative, Commencement Reception, August, December, 2014
- Participant in the COE Mentoring session: Form 36. December 2014
- Co-chair, Learning Design and Technology Search Committee for tenure track, open-rank faculty position. October 2014 – present
- Member, Department Head Search Committee, Curriculum and Instruction. September 2014 – March 2015

5. **Service Related To Elementary Education Reform Efforts**

a) Member of the Elementary Reform Design Team charged with designing *Learning and Motivation*, Purdue University. January – June 1998

b) Faculty discussant for EDCI 204A, *Introduction to Elementary Education*, field experience. January 1998 – April 1998

c) Member of Teacher Education/Curriculum Studies Faculty Search Committee, Purdue University. September 1998 – April 1999

d) Member of the Educational Technology Design Team charged with designing EDCI 271, *Classroom Applications of Educational Technology*. October 1998 – August 1999

e) Member of Portfolio Assessment Task Force charged with defining the parameters of portfolios that will be used to document students' professional preparation in the teacher education program. Summer 1999 – Spring 2000

f) Represented members of Block 2 design team at the first Town Meeting held at Burnett Creek Elementary School to provide an update to local elementary administrators and teachers on current reform initiatives. Fall 1999

g) Co-Chair of Block V Interdisciplinary Curriculum Development Team charged with developing a new course to serve as the capstone for the new El Ed Reform program. Fall 1999 – Fall 2000

h) Member of Elementary Education and Elementary Science Education Faculty Search Committee, Purdue University. January 2001 – April 2001

i) Member of the Portfolio Task Force, a subcommittee of the Elementary Education Committee, Purdue University. August 2001 – August 2002

j) Member of the Transition to Teaching Task Force, a subcommittee of the Elementary Education Committee, Purdue University. August 2002 – December 2002

6. **National and International Service**

a) Proposal reviewer for American Educational Research Association (AERA), Division C, PBL SIG, and IT SIG. August 1995 - present

b) Evaluator for the International Society for Performance and Instruction (ISPI) Awards of Excellence Research Award. January - April 1996

c) Proposal reviewer for the Association for Educational Communications and Technology (AECT), Division of Design and Development (DID), April 1996 - present

d) Evaluator (judge) for the 1996 Instructional Design Team Case Competition sponsored by the Curry School of Education at the University of Virginia. February - May 1996

e) Proposal reviewer for the Association for Educational Communications and Technology (AECT), Division of Interactive Systems and Computers (DISC). May 1996

f) Proposal reviewer for the Critical Issues in Education Symposium: Motivation in the Classroom, Purdue University. May 1996

g) Provocateur for the 1997 Instructional Design Team Case Competition sponsored by the Curry School of Education at the University of Virginia. February - May 1997

h) Chair and discussant for Research Paper Session ("Constructivist Approaches to Technology Integration"), Association for Educational Communications and Technology (AECT). February 1998

i) Proposal reviewer for the Association for Educational Communications and Technology (AECT), *Research Papers*. May 1998 - present

j) Program co-chair for American Educational Research Association (AERA), Division C, Learning and Instruction, Section 5, *Cognitive, Social, Developmental, and Motivational Processes*. May 1999 - April 2000

k) Chair for Research Paper Session ("Teacher Characteristics and Instructional Processes"), American Educational Research Association (AERA), Division C, Section 5. April 2000

l) Evaluator (judge) for the 2001 Learning Software Design Competition sponsored by the University of Minnesota. March – April 2001

m) Chair, Journal Article Award Committee, Association for Educational Communication and Technology (AECT), Division of Instructional Development (DID). April 2001 - December 2005

n) Research paper reviewer for the National Education Computing Conference (NECC). October 2002 – May 2005

o) Chair and discussant for Design and Development Paper Session ("An Instructional Design Architecture for Teaching Story Problems"), Association for Educational Communications and Technology (AECT). November 2002

p) Proposal reviewer for Ed-Media: World Conference on Educational Multimedia, Hypermedia, and Telecommunications. January 2003

q) Proposal reviewer for Indiana Partnership for Statewide Education (IPSE), the Indiana Higher Education Telecommunications System (IHETS) course and module grant competition. January 2003 to April 2003

r) Member, Nominating Committee, Association for Educational Communications and Technology (AECT), June 2003-December 2006

s) Reviewer, SIG-Instructional Technology Young Researcher Award, American Educational Research Association, October 2004 – present

t) Program Chair, Professors of Instructional Design and Technology, October 2006 - May 2007.

u) New Faculty Mentor, Division C, American Educational Research Association. April 2007.

v) Transformational Change Team (TCT) Member (Representative for the Division of Design and Development). *Future Minds Initiative* of the Association for Educational Communications and Technology (AECT). May 2007 - present.

w) External Reviewer, Promotion and Tenure Review. Served as an external reviewer for faculty at Georgia State, University of Memphis, Santa Clara University, Penn State, and Ball State. Summer, 2007

x) External Reviewer, Promotion and Tenure Review. Served as an external reviewer for faculty at Georgia State, University of Georgia, Indiana University. Summer 2008

y) Reviewer, ETRD, Young Scholar Award. Spring 2008.

z) Expert Reviewer, Problem-based Learning Module authored by Liesl Combs, PhD candidate, Virginia Tech. Winter 2008

aa) External Reviewer, Promotion and Tenure Review. Served as an external reviewer for faculty at Rutgers University and University of Minnesota. Summer 2009.

bb) External Reviewer, Promotion and Tenure Review. Served as an external reviewer for faculty at Akron University, Utah State University, University of Cyprus. Summer 2010.

cc) Discussant, AERA symposium (2010, May). *Instructional design beyond the ideal of technical rationality: Connecting scholarship and practice*. Denver.

dd) External Reviewer, Promotion and Tenure Review. Served as an external reviewer for faculty at Penn State University, Georgia State University, and University of Education, Winneba. Summer 2012.

ee) Discussant, AERA SIG IT Paper Session titled "Teacher Education, Technology Integration, and TPACK." May 2013

ff) Facilitator, AERA SIG PBE Business Meeting. A conversation with Janet Kolodner. April, 2014.

gg) Co-chair, Division C, Section 3b for 2015 AERA meeting. Responsible for soliciting reviewers, assigning reviewers to proposals, and making decisions regarding acceptance of proposals.

hh) External Reviewer, Promotion and Tenure Review. Served as an external reviewer for faculty at BYU. Summer 2014.

ii) Expert Reviewer, Case-based Nursing Modules. Hunter-Bellevue School of Nursing. Fall 2014.

7. **Community and Consulting Services**

a) Member of the Jefferson High School Textbook Adoption Committee. February - March 1996

b) Director of a team of graduate and undergraduate students assisting Murdock Elementary, a Professional Development School, with technology initiatives. August 1996 – December 1998

c) Director of a team of university faculty examining teachers' uses of a new technology-based literacy program (*BreakThrough to Literacy*), adopted by kindergarten and first-grade teachers in Lafayette School Corporation. August 1998 – May 1999

d) *Consultant*, Lawrence Township Schools, January 2003 – June 2007

Advisory Board Member for the Digital Age Literacy Initiative. Provide expertise related to research activities and online teaching strategies.