

DEBBIE DENISE REESE, PH.D.

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SENIOR EDUCATIONAL RESEARCHER: INSTRUCTIONAL TECHNOLOGY

I synthesize and formulate fundamental scientific principles to lead needs assessment, design, development, implementation, research, evaluation, reporting, training, and dissemination for state-of-the-art instructional systems that enhance teaching, learning, and assessment—especially for cyberlearning delivery via game-based learning with embedded assessment. A nationally awarded and recognized record documents my expertise and success. External evaluation finds my project and leadership exemplary (<http://selene.cet.edu/default.aspx?page=reports>).

- Designed & led long-duration (e.g., 7 yrs.), large-scale (i.e., national) projects/initiatives at executive level.
- Secured and sustained federal funding for multi-million dollar research and development.
- Produced inventions and innovation.
- Developed theories and theoretical frameworks. See <http://selene.cet.edu>
- Designed, developed, and implemented research.
- Designed effective work flow processes for large-scale projects with large teams (over 50 staff/partners and over 100 collaborators).
- Conducted program and product evaluation.
- Disseminated research, evaluation, and products (over 40 publications/technical reports and over 60 presentations).
- Acquired and managed resources.
- Conceived and developed branding concepts.
- Led, planned, and implemented instructional design.
- Designed and implemented professional development.
- Built networks and communities.

SELECTED RECENT NATIONAL AWARDS AND RECOGNITION

- **2008-2014:** *Principal Investigator*. National Science Foundation (NSF) award: CyGaMEs. \$1,999,467.
- **2012:** *Winner - game and apps (tie-honorable mention)*; **2007:** *Semi-finalist - multimedia*. NSF and *Science Magazine* International Science and Engineering Visualization Challenge.
- **2012:** *Featured innovation* – Department of Education issues report on data mining and data analytics.
- **2011, 2008:** *Association for Educational Communications and Technology Outstanding Practice Awards*.
- **2011:** *Showcased by the National Science Foundation*. One of 35 STEM programs selected across the U.S. to represent characteristics of successful STEM education.
- **2010:** *Represented the National Science Foundation*. U.S. Senate Technology Showcase.
- **2010:** *Disney Research Learning Challenge Finalist*.

RELATED WORK HISTORY

2007-PRESENT: SENIOR EDUCATIONAL RESEARCHER

- Lead large-scale, national projects (up to 50 project members) and initiatives: proposals, budgets, staff, consultants, partners, and collaborators; conduct research and evaluation project conceptualization, design, planning, budgeting, acquisitions, implementation, reporting, and dissemination.
- *Principal Investigator:* NSF CyGaMEs Project funded at \$1,999,468.
- *Project Lead:* MoonWorld Project, one of four NASA-funded components, combined funding \$3,000,000.
- *Project Lead:* NASA Learning and Videogames Project funded at \$524,971.

2003-2007: EDUCATIONAL RESEARCHER

- Led, managed, and/or conducted national projects funded by approx. \$3,000,000 in NASA awards: Led teams and collaborators (up to 75); wrote grant proposals; led and/or conducted research, instructional design, and evaluation: planning, design, implementation, reporting, training, and dissemination.

GRADUATE EDUCATION

- **1998-2003:** **Virginia Polytechnic Institute and State University**. Ph. D. in Education, Curriculum, and Instruction: Instructional Technology.
- **1996-1998:** **Western Illinois University**. Master of Science - Instructional Technology and Telecommunications.

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EDUCATION

- **Virginia Polytechnic Institute and State University (1998-2003)**
Ph. D. in Education, Curriculum, and Instruction: Instructional Technology
Cognates in Educational Research and Cognition
Dissertation: *Metaphor and Content: An Embodied Paradigm for Learning*
Committee members: John K. Burton (Chair), John M. Carroll, Peter Doolittle, Glen Holmes, Kusum Singh
GPA 4.0
- **Western Illinois University (1996-1998)**
Master of Science - Instructional Technology and Telecommunications
Thesis: *Interdisciplinary, Cognitive and Affective Connections through Visual Tools Adapted to Interactive Multimedia*
Additional concentration of coursework in cognition and statistics. GPA 4.0
- **University of Iowa (1993, 1994)**
Coursework at the Blank/Belin Center for Talented and Gifted Children
- **Drake University (1992, 1993)**
Coursework in meeting the needs of special populations
- **Iowa State University (1981-1988)**
128 semester credit hours in physics, mathematics, creative writing, music, and modern dance
- **University of Nevada at Las Vegas (1972-1975)**
B.S. Education, with Distinction
- **State University of New York at Stony Brook (1971-1972)**
- **MOOCs**
 - **Coursera: Big Data in Education by Ryan Baker, Columbia (2013).** Criteria met for certificate of completion with distinction (highest level offered).
 - **Coursera: Video Games and Learning by Constance Steinkuehler and Kurt Squire (2013), University of Wisconsin,**

Madison. Criteria met for certificate of accomplishment (only level offered).

- **NovoEd: Technology entrepreneurship by Chuck Eesley, Stanford (2014).** “Successfully completed, serving as a team leader and with distinction.”

EXPERIENCE

- **2008–present**—Principal Investigator: Cyberlearning Through Game-based, Metaphor Enhanced Learning Objects (CyGaMEs) project funded by NSF (original funding, NASA). Invented and implemented CyGaMEs, a principled approach applying cognitive science analogical reasoning theory and task analysis to design instructional games that modify behavior to cause and measure learning. Conceptualized theories and theoretical frameworks. Conceptualized and implemented a metaphoric structure for CyGaMEs enterprise (see 15-second animation summarizing metaphoric structure <http://hulk.cet.edu/nextSelene/Metaphorics/CYVideo.html>). Created and produced **multi-award-winning** CyGaMEs instructional game *Selene: A Lunar Construction GaME*. Developed instrument for assessing affect derived from flow theory. Developed and conducted research studying cyberlearning assessment embedded in instructional games. Developed new techniques and methods for analysis of CyGaMEs assessment data. Developed and implemented badges and achievements as reporting systems for learners and educators. Built networks (educators, partners, collaborators, and student advisors – Junior Research Advisory Council [J-RACs]); led and managed team, staff, consultants, and budget; partnering with the National Association for Bilingual Education (NABE), prepared resources for and released a Spanish version of the game, badging, and achievements; aligned *Selene* with national and state standards and the Framework; developed and disseminated hands-on lunar science unit activities to integrate game-based learning within instruction and the CyGaMEs Gameplay Inquiry Cycle <http://selene.cet.edu/default.aspx?page=educators#InquiryCycle> (available in English and Spanish). See project websites: <http://selene.cet.edu> <http://cygames.cet.edu>
Project external evaluation reports: <http://selene.cet.edu/default.aspx?page=reports>
- **2008–2012**—Lead, *MoonWorld* Project (virtual world learning environment for authentic lunar geological field work), Center for Educational Technologies, NASA-sponsored Classroom of the Future, Wheeling Jesuit University, Wheeling, West Virginia. Conduct task analysis; manage, mediate, and coordinate project collaborations and consultants; collaborate with builders to solve design challenges; design and manage quality assurance; design, develop, and conduct training and dissemination—along with materials; design mentoring system (known as mentars: avatar

- mentors); analyze quantitative and qualitative (video) data; prepare and present final/close-out report.
- **2009**—As affiliate of the Professional Education Department designed, developed, and taught PED 473 Elementary Internship: Action Research. PED 473 is a required class for Professional Education students. Wheeling Jesuit University, Wheeling, West Virginia.
 - **2007–present**—Senior Educational Researcher, Center for Educational Technologies, Wheeling Jesuit University, Wheeling, West Virginia.
 - **2006–present**—Senior Management Team, Center for Educational Technologies, Wheeling Jesuit University, Wheeling, West Virginia. As assigned, provide vision, direction, and leadership for the Center for Educational Technologies reporting directly to the Executive Director. Write grant proposals and reports, evaluate NASA initiatives and other opportunities, and represent organization.
 - **2006-2009**—Lead Researcher and Project Manager, NASA Learning and Assessment in Videogames Project – Part 2, Educational Researcher NASA-sponsored Classroom of the Future, Center for Educational Technologies, Wheeling Jesuit University, Wheeling, West Virginia. Build partnerships, conduct literature review, develop and implement theoretical approach to instructional game design and embedded assessment, design project, design and run studies, disseminate findings, lead design of game, disseminate results, build networks, manage staff and budget. Write grant proposals.
 - **2006-2007**— Lead Researcher and Project Manager, Inspiration Project – Part 2, Center for Educational Technologies, NASA-sponsored Classroom of the Future, Wheeling Jesuit University, Wheeling, West Virginia. Design project, coordinate literature review, develop model, write reports, develop dissemination manuscripts and presentations, manage staff and budget. Led design, development, and investigation of interventions to support the NASA mission and tagline “Inspire as only NASA can”: (a) DiSC Tool—Discussion in a Scientific Context: A social intervention to enhance student engagement in argumentation and (b) RoboKids Tool – An affective intervention applying role models to build identity and self-efficacy for LEGO MindStorms robotics.
 - **2006-2006**—Educational Researcher, Demolition Safety: Conventional and Unconventional Jobsites Training Module project, Center for Educational Technologies, Wheeling Jesuit University, Wheeling, West Virginia. Write proposal scope and evaluation/assessment sections, research and specify domain, write assessment specifications, and write assessment.
 - **2006-2006**—Lead Researcher, NASA Learning and Videogames Project- Part 1, Educational Researcher NASA-sponsored Classroom of the Future, Center for Educational Technologies, Wheeling Jesuit University, Wheeling, West Virginia. Instructional digital game design and assessment. Conduct and analyze in-house expert review leading to game genre-learning outcome matrix. Conduct: literature review, experimental design, design of instrumentation, project management, development of theoretical

- framework. Advisor to NASA game project leaders and designers. Write reports, develop dissemination manuscripts and presentations.
- **2005-2006**—Lead Researcher, Inspiration Project – Part 1, Educational Researcher NASA-sponsored Classroom of the Future, Wheeling Jesuit University, Wheeling, West Virginia. Project management, research design, theoretical framework design, technology tool design, talent development, instructor, director, implementation, data analysis, report and manuscript writing, presentations, and technology tool development overseeing a team of 41 staff.
 - **2005-2006**—Lead, Needs Assessment Phase II Project, Educational Researcher NASA-sponsored Classroom of the Future, Wheeling Jesuit University, Wheeling, West Virginia. Conduct, analyze, report, and disseminate Needs Assessment Part 2: Expert Panel for NASA Education Technology and Products Office.
 - **2003-2006**—Educational Researcher, Erma Ora Byrd Center for Educational Technologies, Wheeling Jesuit University, Wheeling, West Virginia. Research, evaluation, and instructional design, distance education facilitator, qualitative and quantitative data analysis, report writing, development of manuscripts and presentations, proposal writing, administrative planning and management.
 - **2002-2003**—Graduate Research Assistant, Center for Human-Computer Interaction, Virginia Polytechnic Institute and State University. Data analysis, presentation preparation, literature reviews.
 - **2001-2002**—Instructor (as graduate assistant), Instructional Technology Department of Teaching and Learning, Virginia Polytechnic Institute and State University. Develop and instructor of record for three hybrid graduate classes in instructional technology for elementary education preservice master's level teachers.
 - **2001-2001**—Research Assistant, Educational Policy and Leadership Studies, Virginia Polytechnic Institute and State University. Develop bibliography, learn and provide instruction to faculty on statistical software packages for analysis of large data samples.
 - **1999-2001**—Program Coordinator (graduate assistantship) for Instructional Technology master's degree program, Department of Teaching and Learning, Virginia Polytechnic Institute and State University. Instructional design and administration. Design, develop, and deliver online and face-to-face instruction, liaison between graduate students and faculty, program administration.
 - **1998-1999**—Graduate Assistantship, HouseCalls, Department of Teaching and Learning, Virginia Polytechnic Institute and State University: computer tech support for faculty.
 - **1998-1999**—Design and Develop Software for Dr. Bem Allen, Professor, psychology Department, Western Illinois University.

- **1997-1998**—Part-time Instructor, Carl Sandburg College, Center for Agriculture, Business, and Industry, Illinois. Instructional technology literacy.
- **1997-1998**—Design and Develop Software for Virginia Diehl, Professor, Psychology Department, Western Illinois University.
- **1997-1998**—Graduate and Teaching Assistantship, Western Illinois University, Department of Instructional Technology and Telecommunications. Deliver satellite instruction, deliver face-to-face instruction, provide online facilitation, grading, instructional assistant.
- **1992-1996**—Teacher: calculus readiness; modern dance; ballet; piano; creative writing; creative dramatics; singing; fitness- Summer Program for Talented and Gifted Children, grades 4 - 8, Keokuk and Burlington, Iowa
- **1990-1996**—Teacher: 6, 7, 8 Talented and Gifted; Music; Language Arts; Reading-Keokuk Community Schools, Keokuk, Iowa
- **1991-1996**—Director, Tri-State Dance Theater, Keokuk, Iowa. Manage summer modern dance program for youth aged 8-21: contract with talent, secure grant funding, recruit students, produce performances, advertising.
- **1990**—Classical Singer and Project Manager, Two performances aired on Iowa Public Television: “The Samuel Barber Song Project” for soprano, dancer, and pianist.
- **1988-1990**—Instructor, Octagon Center for the Arts, Ames, Iowa. Modern dance, ballet, creative movement, piano.
- **1988-1990**—General Manager, CoMotion Dance Theater (modern dance company) Ames, Iowa.
- **1989-1990**—Poetry commissions: Iowa State Dance Department; South Dakota State University Dance Department.
- **1988-1991**—Performance Artist - singer, poet, dance educator - Iowa Arts Council, Arts and Recreation Council of Greater Des Moines; Des Moines Art Center; University of Northern Iowa; CoMotion Dance Theater; Central Iowa Symphony; Jazz in July.
- **1982-1988**—Stay-at-home mom and student at Iowa State
- **1981-1982**—Dispatcher - Green County Sheriff’s Department, Jefferson, IA
- **1975-1981**—Stay-at-home mom
- **1975**—Teacher—6th Grade Core (Language arts, reading, history) and Music, Clark County School District, Las Vegas, Nevada

GRANTS AND RESEARCH PROJECTS

- **2008–2014**—PI: Cyber-enabled Teaching and Learning through Game-based, Metaphor Enhanced Learning Objects (CyGaMEs), National Science Foundation DLR – Research & Evaluation on Education in Science and Engineering. \$1,999,467. Award DRL-0814512. See <http://selene.cet.edu>
Project external evaluation reports:
<http://selene.cet.edu/default.aspx?page=reports>

- **2008-2012**—Senior educational researcher: *MoonWorld* – Learning and assessment within virtual worlds awarded as part of the NASA-sponsored Classroom of the Future. The NASA-sponsored Classroom of the Future was funded at \$1,000,000/year. <http://moonworld.cet.edu> See also <http://www.youtube.com/watch?v=7Q9LmhZYwwU> and <http://selene.cet.edu/default.aspx?page=news&id=89>
- **2006-2008**—NASA Learning and Video Games Project. (Project manager, Lead researcher) Develop game design, flow, and learning frameworks. Lead game design and development; design, run and analyze research studies of flow and learning; study design; playtesting; develop proposals and manuscripts for dissemination through presentations and peer reviewed publications. (2006 award approx \$150,000; 2007 award approx. \$413,000; 2008 award \$111,971) NSF semi-finalist honor awarded for *Selene*, 2007 International Science & Engineering Visualization Challenge, interactive media category.
- **2005-2006**—Inspiration Project. (Lead) Define Model of Systemic Inspiration Growth, develop research hypotheses, design and develop technology tools to test those hypotheses, run Inspiration Labs to test those hypotheses. (approx. \$300,000)
- **2005-2005**—Metaphor-enabled Learning (in-house grant \$25,000), PI, Virtual Design Center, NASA-sponsored Classroom of the Future.
- **2003-2005**—NASA-sponsored Virtual Design Center (component of NASA-sponsored Classroom of the Future cooperative agreement) <http://vdc.cet.edu>
- **2003-2004**—NASA Explorer Schools Evaluation, member of research team (\$2,000,000).
- **2003-2004**—JesuitNET Evaluation. Conduct qualitative analysis.
- **2002 - 2003**—EPIC (Exploring People, Internet, and Communities): Interdisciplinary Views of the Blacksburg Electronic Village, Virginia Polytechnic Institute and State University. John M. Carroll, PI. NSF-ITR sponsored project, quantitative and qualitative data analysis (graduate research assistant).
- **2001**—PT3 Grant, Virginia Polytechnic Institute and State University. Served as technology teacher (graduate assistantship).
- **2001**—Students' Cognitive, Affective, Socio-demographic characteristics and school/classroom instructional contexts as factors in mathematics and science achievement: Analysis of TIMSS, Virginia Polytechnic Institute and State University. Kusum Singh, PI. NSF ROLE sponsored project, (graduate research assistantship).
- **1999-2001**—ITMA grant (Instructional Technology Master's Program), Virginia Polytechnic Institute and State University. Served as program administrator (graduate assistantship), student-faculty-administration-partner institution liaison, designed and developed online and face-to-face instruction.

AWARDS

- **2013**—Winner of the *Science Magazine* and National Science Foundation 2012 International Science and Engineering Visualization Challenge, games and apps category for CyGaMEs *Selene* (Tie for Honorable Mention, no first place awarded). (See International Science & Engineering Visualization Challenge http://www.nsf.gov/news/special_reports/scivis/winners_2012.jsp or Science Online (<http://www.sciencemag.org/content/339/6119/516.full>) or <http://selene.cet.edu/default.aspx?page=news&id=104>).
- **2013**—¡Sí! ¡Sí! ¡Selene! Winner of 2013 Hispanic Graphic Design Award: “Recognizing the growing influence and important contribution of the Hispanic community to commerce and culture in the United States — and the outstanding graphic design and advertising being developed to reach the Hispanic market.” Awarded by *Graphic Design USA*: “Since 1963 Graphic Design USA has been the news magazine for graphic designers and other creative professionals.” Art director and designer: Cassie Lightfritz, Principal Investigator: **Debbie Denise Reese**, Editor: Janis Worklan, and Spanish localization: Nieves Leticia Martín Hernández.
- **2011**—Outstanding Practice for Design and Development of *Selene II: A Lunar Construction GaME* awarded by the 2011 Outstanding Practice Committee of the Design and Development Division of the Association for Educational Communications and Technology to “those individuals or groups that have designed exemplary instructional materials or systems.” The committee believes Reese’s “submission for *Selene II* was exceptional.”
- **2010**—Disney Research named the *Selene* game and CyGaMEs research a finalist in its 2010 Learning Challenge Competition. The 15 finalists from an international pool of applicants “have created engaging learning widgets that best harness the potential of digital technologies and children’s creativity to advance learning.” The finalists were chosen because they “delight, inspire, and reveal key learning concepts for children ages 7-11.”
- **2009**—Best in Traditional Research awarded to Reese and Virginia A. Diehl for their presentation, *Preparing Students to Learn Intractable Science Concepts with Game-based Metaphor-Enhanced Instructional Design* at the 4th Annual Western Illinois University Faculty Research Symposium.
- **2009**—NASA Public Service Group Achievement Award, an Agency Honor Award, to the ModSim conference showcase presenters representing NASA Education. The award recognized the team for exemplary performance.
- **2008**—Outstanding Practice for Design and Development of *Selene: A Lunar Construction GaME* awarded by the 2008 Outstanding Practice Committee of the Design and Development Division of the Association for Educational Communications and Technology to “those individuals or groups that have designed exemplary instructional materials or systems.”

- **2008**—Distinguished Visitor. 1st International Meeting on Evaluation for Mid-Higher Level Education and College Level Education, Veracruz, Veracruz, Mexico.
- **2008**—NASA Public Service Group Achievement Award, an Agency Honor Award, to the Paperwork Reduction Education Clearance Team nominated by Academic Affairs in the Office of Human Capital. The award recognized the team for exemplary performance during FY07 in obtaining approvals for NASA's first federally-sponsored generic data collections that will support efforts to improve NASA's Education investments.
- **2007**—Showcased Project: Selene: A Lunar Construction GaME – Association for Educational Communications and Technology Design and Development Showcase, selection through peer review.
- **2007**—NSF and *Science* semi-finalist honor awarded for *Selene*, 2007 International Science & Engineering Visualization Challenge, interactive media category.
- **2004**—Editor's Choice Honorable Mention from the International Visual Literacy Association's book of *Selected Readings* editors for paper (Meaning in Motion: Conceptual Metaphor as a Motion Graphic Design Communications Tool).
- **2003**—Editor's Choice Honorable Mention from the International Visual Literacy Association's book of *Selected Readings* editors for paper (Trees of Knowledge: Changing Mental Models through Metaphorical Episodes and Concept Maps).
- **2002**—Review of the book *The child and the machine: How computers put our children's education at risk* (Reese and Burton, 2002) recognized by Teacher's College Record as one of the ten most popular book reviews of the year.
- **1998**—Initiation into the National Honor Society of Phi Kappa Phi
- **1997-1998**—Graduate and Teaching Assistantship, Western Illinois University, Department of Instructional Technology and Telecommunications.
- **1997**—Winner, J. W. Stein Creative Young Scholar Award, Western Illinois University.
- **1996**—Winners of the Family Practice Doctors of Iowa Issues Video Competition, 2nd place, Keokuk Talented and Gifted Program, 8th grade.
- **1988**—Winner Iowa State University Simon Estes Master Class Competition-Singer, soprano.
- **1988**—Winner, Iowa State University Concerto Competition - Singer, Soprano.
- **1987 (spring) 1987 (fall) 1988 (spring) 1988 (fall)** —Leading roles in Lyric Opera Productions, Iowa State University.

PEER REVIEWED PUBLICATIONS

Reese, D. D., Tabachnick, B. G., & Kosko, R. E. (2014). Video game learning dynamics: Actionable measures of multidimensional learning trajectories.

British Journal of Educational Technology. Advance online publication
<http://onlinelibrary.wiley.com/doi/10.1111/bjet.12128/pdf>
doi:10.1111/bjet.12128

- Reese, D. D.** (2014) Digital knowledge maps: The foundation for learning analytics through instructional games. In D. Ifenthaler, & R. Hanewald (Eds.), *Digital knowledge maps in education: Technology-enhanced support for teachers and learners* (pp. 299-327). New York: Springer. doi: 10.1007/978-1-4614-3178-7_16
- Reese, D. D.,** Seward, R. J., Tabachnick, B. G., Hitt, B., Harrison, A., & McFarland, L. (2012). Timed Report measures learning: Game-based embedded assessment. In D. Ifenthaler, D. Eseryel, & X. Ge (Eds.), *Assessment in game-based learning: Foundations, innovations, and perspectives* (pp. 145-172). New York: Springer. doi: 10.1007/978-1-4614-3546-4_9
- Reese, D. D.** (2012). CyGaMEs: A full service instructional design model harnessing game-based technologies for learning and assessment. In L. Moller & J. B. Huett (Eds.), *The next generation of distance education* (pp. 157-170). New York, NY: Springer. Available online at <http://www.springerlink.com/content/p821714747087845/>
doi: 10.1007/978-1-4614-1785-9_10
- Diehl, V., & **Reese, D. D.** (2010). Elaborated metaphors support viable inferences about difficult science concepts. *Educational Psychology, 30*(7), 771-791. doi: 10.1080/01443410.2010.504996
- Reese, D. D.** (2010). Introducing flowometer: A CyGaMEs assessment suite tool. In R. V. Eck (Ed.), *Gaming & cognition: Theories and perspectives from the learning sciences* (pp. 227-254). Hershey, PA: IGI Global. doi: 10.4018/978-1-61520-717-6.ch011
- Reese, D. D.,** & Wood, C. A. (2010, March). Learning lunar science through the Selene videogame. *Proceedings of the 41th Lunar and Planetary Science Conference*. Available at <http://www.lpi.usra.edu/meetings/lpsc2010/pdf/2260.pdf>
- Wood, C. A., **Reese, D. D.,** Ruberg, L., Harrison, A., Lightfritz, C., & Avatrian, LLC. (2010). *MoonWorld: Implementation of Virtual Exploration. Proceedings of the 41st Lunar & Planetary Science Conference, #1439*. Available at <http://www.lpi.usra.edu/meetings/lpsc2010/pdf/1439.pdf>
- Carter, B., Wilbanks, L., & **Reese, D. D.** (2009). Enhancing science education through instructional games that prepare students for knowledge acquisition. In I. W. Gibson, R. Weber, K. McFerrin, R. Carlsen, & D. A. Willis (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 2009* (pp. 1410-1417). AACE: Chesapeake, VA.
- Reese, D. D.** (2009). Structure mapping theory as a formalism for instructional game design and assessment. In D. Gentner, K. Holyoak, & B. Kokinov (Eds.), *New frontiers in analogy research: Proceedings of the 2nd International Conference on Analogy (Analogy '09)* (pp. 394-403). Sofia, Bulgaria: New Bulgarian University Press.

- Reese, D. D.** (2008). GaME design for intuitive concept knowledge. In R. E. Ferdig (Ed.), *Handbook of research on effective electronic gaming in education* (pp. 1104-1126). Hershey, PA: Idea Group. doi: 10.4018/978-1-60960-195-9.ch210
- Wood, C. A., & **Reese, D. D.** (2008). Selene: A videogame for learning about the Moon. In C. D. Garmany, M. G. Gibbs, & J. W. Moody (Eds.), *EPO and a changing world: Creating linkages and expanding partnerships: The 119th annual ASP meeting*, 389, 109-110. Available at http://www.aspbooks.org/a/volumes/article_details/?paper_id=28343
- Kavanaugh, A., **Reese, D. D.**, & Pérez-Quiñones, M. (2007). Mobile Telephony Infrastructure and Devices: Affordable access and informal learning for low literacy groups. In C. D. Garmany, M. G. Gibbs, & J. W. Moody (Eds.), *Proceedings of the 35th Telecommunications Policy Research Conference*.
- Reese, D. D.** (2007). First steps and beyond: Serious games as preparation for future learning. *The Journal of Educational Multimedia and Hypermedia (JEMH)*, 16(3), 283-300.
- Kavanaugh, A., Carroll, J. M., Rosson, M. B., **Reese, D. D.**, & Zin, T. T. (2005). Participating in civil society: The case of networked communities. *Interacting with Computers: Designing for a Civil Society*, 17(1), 9-33. doi: 10.1016/j.intcom.2004.10.006
- Kavanaugh, A., **Reese, D. D.**, Carroll, J. M., & Rosson, M. B. (2005). Weak ties in networked communities. *The Information Society*, 21(2), 119-131. doi: 10.1080/01972240590925320
- Reese, D. D.**, & Coffield, J. (2005). Just-in-time conceptual scaffolding: Engineering sound instructional metaphors. *International Journal of Technology, Knowledge, and Society*, 1(4), 183-198.
- Bendito, P., & **Reese, D. D.** (2004). Meaning in motion: Conceptual metaphor as a motion graphic design communications tool. In R. E. Griffin, J. Lee & S. Chandler (Eds.), *Changing tides: Selected readings of the international visual literacy association* (pp. 63-68). Newport, RI: International Visual Literacy Association.
- Reese, D. D.**, & Hergert, T. R. (2004). Informal dissemination of visual representations: A function of nexus characteristics. In R. E. Griffin, J. Lee & S. Chandler (Eds.), *Changing tides: Selected readings of the International Visual Literacy Association* (pp. 243-252). Newport, RI.
- Carroll, J. M., & **Reese, D. D.** (2003). Community collective efficacy: Structure and consequences of perceived capacities in the Blacksburg Electronic Village. *Proceedings of the HICSS-36: Hawaii International Conference on System Sciences (CD/ROM)*. Hawaii: IEEE Computer Society (publication in IEEE Digital Library). (Nominated for best paper). Ten pages. doi: 10.1109/HICSS.2003.1174585
- Kavanaugh, A., **Reese, D. D.**, Carroll, J. M., & Rosson, M. B. (2003). Weak ties in networked communities. In M. Huysman, E. Wenger & V. Wulf (Eds.), *Communities and technologies* (pp. 265-286). Amsterdam, The Netherlands: Kluwer Academic Publishers.

- Reese, D. D., & Bendito, P.** (2003). Enhancing e-solution animations through conceptual metaphor. *Journal of Visual Literacy*, 23(2), 163-176.
- Reese, D. D.** (2003). Trees of knowledge: Changing mental models through metaphorical episodes and concept maps. In R. E. Griffin, V. S. Williams & J. Lee (Eds.), *Turning trees: Selected readings*: International Visual Literacy Association.
- Reese, D. D.** (October, 2003). PFnet translations: A tool for concept map quantification. In M. Simonson (Ed.), *Proceedings of selected research and development papers presented at the national convention of the Association for Educational Communications and Technology* (Vol. 1). Anaheim, CA.

INVITED CHAPTER, NON-PEER-REVIEWED JOURNAL ARTICLE, REVIEW, REPORT, TECHNICAL REPORT, RESEARCH INSTRUMENT, OR SYMPOSIUM PAPER

- Álvarez, C., Fernández, J., **Reese, D. D.**, & Negrín, A. (2014). *Selene*: Un videojuego astronómico educativo. *Astronomía*, 175, 38-43.
- Reese, D. D.** (in press). Embodied learning systems. In J. M. Spector, T. Johnson, D. Ifenthaler, W. Savenye, & M. Wang (Eds.), *SAGE Encyclopedia of Educational Technology*. Thousand Oaks, CA: SAGE.
- Reese, D. D., & Gobert, J.** (2012). Knowledge specification: A priori requirement for effective embedded assessment. In M. Timms (Ed.), *New measurement paradigms* (pp. 18-32). Boston, MA: Retrieved from CADRE (Community for Advancing Discovery Research in Education) Education Development Center website http://cadrek12.org/sites/default/files/NMP_Report.pdf (See CyGaMEs description, pp. 13-14)
- Reese, D. D.** (2012). An instructional design approach to effective instructional game design and assessment. In M. Orey, S. A. Jones & R. M. Branch (Eds.), *2011 Educational Media and Technology Yearbook* (Vol. 36, pp. 127-138). New York: Springer. Available at: http://link.springer.com/chapter/10.1007/978-1-4614-1305-9_11 doi: 10.1007/978-1-4614-1305-9_11
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- Reese, D. D.,** & Wood, C. A. (2007). *DRAFT-NASA TV Survey 2007: Qualitative Survey Results* (Technical Report No. COTF/NTV07B3/Nov 16, 2007). Wheeling, WV: Wheeling Jesuit University, Center for Educational Technologies.
- Wood, C. A., & **Reese, D. D.** (2007). *NASA TV Survey 2007: Early results* (No. COTF/NTV07B1/June 22, 2007). Wheeling, WV: Wheeling Jesuit University.
- Wood, C. A., & **Reese, D. D.** (2007). *NASA TV Survey 2007: September 2007 quick look update* (No. COTF/NTV07B1/October 4, 2007). Wheeling, WV: Wheeling Jesuit University.
- Reese, D. D.,** & McFarland, L. (2006). *Inspiration brief 2: The DiSC and RoboKids tools and labs (design and testing)* (No. COTF/B2/Jan-2006). Wheeling: NASA-sponsored Classroom of the Future, Center for Educational Technologies, Wheeling Jesuit University. Available at <http://www.cet.edu/img/titles/InspirationBrief2.pdf>
- Reese, D. D.** (2006). *Foundations of serious games design and assessment* (No. COTF/LVP/Sep-2006). Wheeling, WV: Center for Educational Technologies, Wheeling Jesuit University.
- Reese, D. D.** (2006). *Inspiration Brief 3: Enhancing Perceived Challenge/Skill and Achievement (DiSC 2005)* (No. COTF/B3/Mar-2006). WV: Center for Educational Technologies, Wheeling Jesuit University. Available at <http://www.cet.edu/img/titles/InspirationBrief3.pdf>
- Reese, D. D.,** & Esteva, E. G. M. (2005). *Product testing: Astronomy Village: Investigating the Solar System (AVII)* (No. COTF/PT/October-2005). Wheeling, WV: Center for Educational Technologies, Wheeling Jesuit University.
- Reese, D. D.,** Kim, B., Smith, J., & Howard, B. (2005). *Inspiration brief 1: Defining inspiration, the inspiration challenge, and the informal event (concept paper)* (No. COTF/IB1/6-2005). Wheeling, WV: Center for Educational Technologies, Wheeling Jesuit University. Available at <http://www.cet.edu/img/titles/InspirationBrief1.pdf>

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- Hernandez-Gantes, V., & **Reese, D. D.** (2004). Classroom observation guidelines: InSTEP (integrating strategies and technology in educational practice). Wheeling, WV: Wheeling Jesuit University.
- Hernandez-Gantes, V., McGee, S., **Reese, D. D.**, Kirby, J., & Martin, J. (2004). *NASA Explorer Schools evaluation brief 3: A program in the making*. Wheeling, WV: NASA-sponsored Classroom of the Future, Erma Ora Byrd Center for Educational Technologies, Wheeling Jesuit University.
- Hernández, V. M., McGee, S. M., Kirby, J., & **Reese, D. D.** (2003). *Jesuit Distance Education Network (JesuitNET) evaluation report 2001-2003: Competency Assessment in Distance Education (CADE)*. Wheeling Jesuit University. Wheeling, WV. Retrieved from www.cet.edu/pdf/CETfinalEvaluation2.pdf
- Reese, D. D.**, & Burton, J. K. (2002). [Review of the book *The child and the machine: How computers put our children's education at risk*] [electronic version]. *Teachers College Record*, 104(1).

PLENARY AND INVITED TALKS

- Reese, D. D.** (2013, September). *Inventing the future: Achievement and personalization through instructional videogames*. Highlighted Presentation: Inventors in our Midst Series. Silver Spring Mini Makers Faire, Silver Spring, Maryland.
- Reese, D. D.** (2013, February). *Cyberlearning technologies for STEM achievement - In Spanish! Turn your students into MoonGazers*. Featured special session speaker at the 42 Annual Conference of the National Association for Bilingual Education, Orlando, FL.
- Reese, D. D.** (2012, November). Mapping pragmatics and structure: CyGAMES approach to instructional games with embedded assessment. Visiting Expert Panel Presentation, Center for Advanced Technology in Schools (CATS) Seminar. University of California, Los Angeles.
- Reese, D. D.** (2011, October). Cyberlearning through game-based, metaphor enhanced learning objects (CyGAMES). In G. Fulmer (Chair), *Innovative approaches to assessment in STEM education*. Talk presented at the 2011 National Science Foundation REESE Principal Investigators Meeting, Arlington, VA. Washington, DC.
- Reese, D. D.** (2011, November). *CyGAMES and Selene*. Invited talk as best practice award winner presented at the annual conference of the Association for Educational Communications and Technology. Jacksonville, FL.
- Reese, D. D.** (2011, December). *CyGAMES and Selene*. CADRE's Discover Research K – 12 Gaming SIG Workshop.
- Reese, D. D.**, Wood, C. A., Carter, B., & McFarland, L. (2009, February). *Selene: Research, design, evaluation*. Invited talk presented at the Entertainment

Technology Center Seminar, Pausch Studio, Carnegie Mellon University, Pittsburgh.

Reese, D. D. (2009, February). *CyGaMEs: Selene*. IBM Serious Games Day. Raleigh, NC.

Reese, D. D. (2008, September). []: *The greatest shows on Earth*. 1st International Meeting on Evaluation for Mid-Higher Level Education and College Level Education. Veracruz, Veracruz Mexico.

CONFERENCE PRESENTATIONS, SYMPOSIA, WORKSHOPS, SHOWCASES, THESIS, AND DISSERTATION

Reese, D. D. (2013a). *Expo: CyGaMEs Selene*. Exhibit at Silver Spring Mini Makers Faire, Silver Spring, Maryland.

Reese, D. D. (2013, February). *Cyberlearning technologies for STEM achievement - In Spanish! Turn your students into MoonGazers*. Concurrent session talk presented at the 42 Annual Conference of the National Association for Bilingual Education, Orlando, FL.

Reese, D. D., Ke, F., Warren, S., Loh, C. S., Clark, D., Martinez-Garza, M. (2012, Oct/Nov). In D. Ifenthaler, D. Eseryel & X. Ge (Chairs), *Assessment in game-based learning*. Panel session presented at the annual International Convention of the Association for Educational Communications and Technology. Louisville, KY.

Reese, D. D. (2012, August). *Selene and MoonGazers: Engaging gameplay and hands-on activities*. Annual Conference of the Challenger Center for Space Science Education. Chattanooga, TN.

Hitt, Ben A., & **Reese, D. D.** (2012, April). Knowledge discovery from *Selene* data. In E. Wiebe (Chair), *New measurement paradigms: Psychometric methods for technology-based assessments*. Structured poster session presented at the annual meeting of the American Educational Research Association. Vancouver, BC.

Reese, D. D. (2012). *Virtual world for inquiry and planetary geology field work: MoonWorld Final Report*. (COTF/VWMW.April2012). Wheeling, WV: Center for Educational Technologies, Wheeling Jesuit University.

Reese, D. D. (2012, April). Knowledge specification: A priori requirement for effective embedded assessment. In E. Wiebe (Chair), *New measurement paradigms: Psychometric methods for technology-based assessments*. Structured poster session presented at the annual meeting of the American Educational Research Association. Vancouver, BC.

Reese, D. D. (2012, April). *Assessment and Design for Non-Observable Outcomes in Games*. Guest lecture, University of North Dakota Instructional Design and Technology game development class: IDT545.

Reese, D. D. (2012, April). *To the Moon through game-based learning and assessment*. Talk presented at the Southeast Pennsylvania American Association of Physics Teachers Spring Meeting, Philadelphia, PA.

- Reese, D. D.** (2012, March). *MoonWorld: Lunar Geology Field Work in a Virtual World*. Talk presented at the annual national conference of the National Science Teachers Association, Indianapolis, IN.
- Reese, D. D.** (2012, March). *MoonGazers: CyGaMEs Selene, MoonWorld, and hands-on unit activities*. Series of talks presented at the spring instructional technology training for the Dioceses of West Virginia.
- Reese, D. D.** (2012, March). *Reach for the Moon: Engaging Gameplay and Hands-On Activities*. 4th Annual NASA Educator's Workshop for STEM (NEWS). Charlotte, NC.
- Reese, D. D.** (2011, November). *CyGaMEs Selene, MoonGazers, and MoonWorld*. Invited Design and Development showcase presenter as Outstanding Practice Winner at the annual conference of the Association for Educational Communications and Technology. Jacksonville, FL.
- Reese, D. D.** (2011, October). Reach for the Moon! Meet standards through engaging gameplay and hands-on activities. Talk and workshop presented at the annual conference of the West Virginia Science Teachers Association. Flatwoods, WV.
- Reese, D. D.** (2011, October). *Making Meaning: Semantics, Syntactics, and Pragmatics in Instructional Video Game Design and Embedded Assessment*. Talk presented at the annual meeting of the Semiotics Society of America. Pittsburgh, PA.
- Reese, D. D.** (2011, August). Bringing Videogaming and Virtual Worlds to Your Classrooms: MoonWorld, Selene, and MoonGazers. Talk presented at the annual conference of the Challenger Center for Space Science, Alexandria, VA.
- Reese, D.D. & Seward, R. J.** (2011, September). Selene: A Lunar Construction GaME—A CyGaMEs (Cyber-Enabled Teaching and Learning Through Game-based, Metaphor Enhanced Learning Objects) Instructional Environment with Embedded Assessment Showcase CyGaMEs *Selene* and *MoonGazers*. Showcase presenter at STEM Smart: Lessons learned from successful schools. Hosted by the National Science Foundation. CyGaMEs was selected as one of 35 national examples of resources, programs, schools, and projects aligned to the recommendations of the recent National Research Council report outlining elements that contribute to successful STEM education. Description available at <http://www.successfulstemeducation.org/resources/selene-lunar-construction-game%E2%80%94cygames-cyber-enabled-teaching-and-learning-through-game-b>
- Reese, D. D., & Seward, R. J.** (2011, August). *CyGaMEs Selene, MoonWorld, and MoonGazers*. Showcase and talk presented at the Propel Charter Schools Technology Fair, Pittsburgh, PA.
- Reese, D.D.** (2011, July). *CyGaMEs Selene, MoonWorld, and MoonGazers*. Poster presenter at the annual Gordon Research Conference on Visualization in Science Education. Smithfield, RI.

- Reese, D. D.**, Seward, R. J., Harrison, A., McFarland, L., Hitt, B., & Tabachnick, B. G. (2011, April). *Game-based embedded assessment measures learning*. Paper presented at the annual meeting of American Educational Research Association, New Orleans, LA.
- Wood, C. A., **Reese, D. D.**, & Ruberg, L. (2010). *MoonWorld - Exploring the Moon in virtual worlds*. Poster presented at the European Planetary Science Congress, Rome, Italy.
- Laughlin, D., Clark, M. A., **Reese, D. D.**, & Lowe, C. (2010). *SciLands best practices in education panel*. Talk presented at the Virtual Worlds Best Practices in Education Conference, Second Life. Available at <http://www.slideshare.net/01archivist/scilands-best-practices-in-education-panel-and-discussion>
- Reese, D. D.**, Wood, C. A., Hitt, B., Harrison, A., McFarland, L., Seward, R. J., & Hernandez-Gantes, V. (2010, July). *CyGaMEs Selene: A Lunar Construction GaME*. Finalist showcase presented at the SIGGRAPH 2010 Disney Research Learning Challenge, Los Angeles.
- Reese, D. D.**, Wood, C. A., Ruberg, L., Harrison, A., & Lightfritz, C. (2010, February). *Virtual world for inquiry and planetary geology field work: MoonWorld*. Talk presented at the 2nd Annual NASA STEM Educator Workshop, Charlotte, NC.
- Reese, D. D.**, Yelenic, J., & Neuenschwander, J. (2010, October). *To the Moon through Virtual Worlds and Game-based Learning*. Talk presented at the West Virginia Science Teachers Association, Wheeling, WV.
- Reese, D. D.** (2010, December). *Learning new things through gaming: One company's journey toward CyGaMEs expertise*. Worked example presented at Games, Learning, and Society 2010, Madison, WI.
- Reese, D. D.** (2010, December). *Learning new things through gaming & virtual worlds*. Workshop presented at the NASA Aerospace Education Services Project Annual Meeting, Penn State University, PA.
- Reese, D. D.** (2010, July). *CyGaMEs: A full-service instructional design model harnessing game-based technologies for learning and assessment*. Paper presented at the Association for Educational Communications and Technology 2010 Summer Research Symposium Bloomington, IA.
- Reese, D. D.** (2010, June). *Virtual Worlds: Moon World (#3)*. Talk presented at the Virtual Worlds Panel, Educational Support Management Group, Second Life.
- Reese, D. D.** (2010, June). *Virtual Worlds: Moon World (#2)*. Talk presented at the Virtual Worlds Panel, Educational Support Management Group, Second Life.
- Reese, D. D.** (2010, April). *Virtual Worlds: Moon World (#1)*. Talk presented at the Virtual Worlds Panel, Educational Support Management Group, Second Life.
- Reese, D. D.**, & Harrison, A. (2009, October). *Selene and MoonWorld*. Showcase presented at NASA LE&RN booth at the Third Annual MODSIM World Conference and Expo, Virginia Beach.
- Reese, D. D.** (2009, November). *Selene: A Lunar Construction GaME*. Highlighted technology selected by the National Science Foundation and featured at the

- National Science Foundation Senate Education Technology Showcase, Washington, DC.
- Reese, D. D.** (2009, November). *CyGaMEs Selene*. Showcase presenter at the U.S. Senate Education Technology Showcase. Washington, DC. One of 17 educational technologies funded and selected by the National Science Foundation to showcase at the Hart Senate Office Building and funded by the State Education Technology Directors Association. Description available online http://www.nsf.gov/news/news_summ.jsp?cntn_id=115878.
- Reese, D. D.** (2009, October). *Replication supports flowometer: Advancing cyberlearning through game-based assessment technologies*. Paper presented at the 2009 International Conference of the Association for Educational Communications and Technology International Convention, Louisville, KY.
- Reese, D. D.** (2009, August). *CyGaMEs: Effective game design for successful learning and assessment*. Talk presented at the Interactive Technologies 2009 Washington SALT® Conference.
- Reese, D. D.** (2009, June). *Selene*. Workshop presented at the NASA Aerospace Education Services Project Annual Sandbox Goddard Space Flight Center, Greenbelt, MD.
- Reese, D. D., & Hitt, B. A.** (2009, June). *Selene knowledge discovery: The interface effect*. Poster presented at the Games+Learning+Society 5.0 conference, Madison, WI.
- Reese, D. D., Diehl, V. A., & Lurquin, J. L.** (2009, May). *Metaphor enhanced instructional video game causes conceptual gains in lunar science knowledge*. Poster presented at the annual meeting of the Association for Psychological Science, San Francisco.
- Ruberg, L., Wood, C. A., **Reese, D. D.**, Lightfritz, C., & Harrison, A. (2009, March). *MoonWorld: Virtual Fieldwork in Second Life*. Poster presented at the 40th Lunar and Planetary Science Conference, The Woodlands, TX.
- Diehl, V. A., & **Reese, D. D.** (2009, October). *Preparing students to learn intractable science concepts with game-based metaphor enhanced instructional design*. Paper presented at the 4th Annual Faculty Research Symposium, Western Illinois University, Macomb, IL. ("Best in Traditional Research" Track Award.)
- Loh, C. S., **Reese, D. D.**, & Warren, S. (2008, November). *Instructional design, evaluation, and assessment standards in serious games*. Symposium conducted at the 2008 International Conference of the Association for Educational Communications and Technology, Orlando, FL.
- Reese, D. D.** (2008, November). *Flowometer: Embedded measurement of learners' flow perceptions within game-based instructional environments*. Paper presented at the 2008 International Conference of the Association for Educational Communications and Technology, Orlando, FL.
- Reese, D. D.** (2008, July). *CyGaMEs for Learning and Assessing Conceptual Knowledge: The How-to Primer*. Workshop presented at

- Games+Learning+Society 4.0, Madison, WI. (peer reviewed selection procedure).
- Conaway, S., Phillips, M., Carter, B., Hitt, B., & **Reese, D. D.** (2008, March). *Selene: Learning the past with today's technologies*. Talk presented at the Fifth Annual Mid-Atlantic Undergraduate Research Conference, West Virginia Wesleyan College, Buckhannon, WV.
- Diehl, V., Vaught, A. L., Bleuer, J., & **Reese, D. D.** (2008, May). *Elaboration leads to more effective metaphor use in chemistry learning*. Poster session presented at the annual meeting of the Association for Psychological Science.
- Reese, D. D.** (2007, April). *Designing the metaphor-enhanced virtual world: Games as Preparation for future learning*. Paper presented at the annual conference of the American Educational Research Association, Chicago.
- Reese, D. D.** (2007, October). *Finding flow with game-based reflective tools: Instructional game design for adaptive expertise*. Paper presented at the 2007 International Conference of the Association for Educational Communications and Technology, Anaheim, CA.
- Reese, D. D.** (2007, October). *Selenology Exploration–Ludic Environments–Networked Education (SELENE)*. Design & Development Showcase. International Convention for the Association for Educational Communications and Technology, Anaheim, CA. (peer reviewed selection procedure).
- Reese, D. D.** (2007, June). *Games as preparation for future learning*. NASA Langley Explorer Schools Technology Immersion Workshop.
- Reese, D. D.** (2007, April). *Increasing flow during middle school science with the e-Mission live simulation and the DiSC argumentation tool*. Roundtable presented at the annual meeting of the American Educational Research Association, Chicago.
- Reese, D. D.** (2007, April). *Selene*. Game-Based Learning Workshop: Technology-Based Tools for Teaching and Learning in the 21st Century, Co-Sponsored by the Virginia Modeling and Simulation Center and NASA Langley Research Center, Suffolk, VA.
- Reese, D. D.** (2007, March). *Designing Selene: Theory-based game design and data-mining*. Presentation at the Serious Games Summit, San Francisco. Retrieved from <https://store.cmpgame.com/product.php?cat=19&id=2022>.
- Diehl, V., **Reese, D. D.**, Crull, M. J., & Joos, L. (2007, May). *Elaborated metaphors for enhancing chemistry learning*. Poster session presented at the annual meeting of the Association for Psychological Science, Washington, DC.
- Reese, D. D.** (2005, October). *The analogical designs model*. Paper presented at the annual meeting of the Association for Educational Communications and Technology, Orlando, FL.
- Reese, D. D.** (2005, October). *Engineering instructional metaphors: A task of graphic isomorphism*. Paper presented at the annual meeting of the International Visual Literacy Association, Orlando, FL.

- Reese, D. D.** (2005, July). *Developing sound metaphors for science education*. Poster presented at the Gordon Research Conference: Visualization in Science Education, Oxford, England.
- Reese, D. D.** (2005). *Needs assessment phase II: NASA expert panel report (responses and recommendations)* (report No. NA/R2/Dec-2005). Wheeling, WV: Center for Educational Technologies, Wheeling Jesuit University.
- Reese, D. D.** (2004, April). *Assessment and concept map structure: The interaction between subscores and well-formed mental models*. Paper presented at the annual meeting of the American Educational Research Association, San Diego.
- Reese, D. D.** (2000, February). *Learning environments which effect higher-order processing*. Paper presented at the annual meeting of the Eastern Educational Research Association, Clearwater, FL.

MEDIA VIDEO FEATURES

- National Science Foundation (Producer). (2013, April). 2012 winners. *International Science & Engineering Visualization Challenge*. [Video and webpage] Retrieved from http://www.nsf.gov/news/special_reports/scivis/winners_2012.jsp
- Jacobs, L. (Producer). (2013, January 29). Bilingual Students, Ed Tech, and Science Teaching: Guests Debbie Denise Reese and Santiago Wood. *EduTalk Radio*. [Radio Show] Retrieved from <http://www.blogtalkradio.com/edutalk/2013/01/29/bi-lingual-students-ed-tech-and-science-teaching>
- Brown, K. (Producer). (2011, October). CyGaMEs Selene and MoonWorld. *EdLine News*. NASA Education, Washington, DC. Available at <http://www.youtube.com/watch?v=ORnc39PpACA>
- Brown, K. (Producer). (2011, February 14). Lunar Games. [Television News Feature]. *Mountain State Science*. West Virginia Public Broadcasting. Available at http://www.youtube.com/watch?v=ZBPq3Hc_g1Y

SERVICE

- **2007 – Present:** NSF Reviewer: Ad Hoc, Site Visit, and Panelist. 2007, 2008, 2011, 2012, 2013.
- **2008 – Present:** Professional development workshops MoonGazers, *MoonWorld*, and *Selene*. Instruct educators and/or students in game-based learning, virtual worlds, and their integration into curricular hands-on unit activities through lunar and planetary geology hands-on activities and lunar photography. Workshops, webinars, and face-to-face presentations are conducted with/for/through school districts, Charter schools, afterschool programs, NASA Summer of Innovation Ignite, the National Challenger

Center, national organizations, and NASA STEM conferences and programs such as the Aerospace Specialists Program.

Workshops for Students and Professional Development for Educators Events (some of these appear above in other sections)

Reese, D. D. (2013, March). *CyGaMEs for Technology Supported Assessment*. Guest lecturer for doctoral course Ed 645: Technology Supported Assessment, Wilkes-Barre, PA.

Reese, D. D. (2013, March). *CyGaMEs: Instructional Videogame Design and Embedded Assessment*. Guest lecturer for doctoral course 545: Instructional Simulations and Games, University of North Dakota.

Reese, D. D. (2012, September). Engaging Gameplay and hands-on activities. Stars at Yerkes Workshop (webinar). Williams Bay, WI.

Reese, D. D. (2012, March). *Reach for the Moon: Engaging Gameplay and Hands-On Activities*. 4th Annual NASA Educator's Workshop for STEM (NEWS). Charlotte, NC.

Reese, D. D. (2012, August). *Bringing videogaming to our classrooms: Selene, MoonGazers hands-on activities, and big data*. Workshop presented at the annual conference of the Challenger Center for Space Science Education, Chattanooga, TN.

Reese, D. D. (2011, October). *CyGaMEs Selene and MoonWorld*. Talk presented at the Internet 2 K-20 Member Meeting.

Reese, D. D. (2011, December). MoonGazers: CyGaMEs Selene, MoonWorld, and MoonGazers II. Webinar presented for the Challenger Center for Space Science Education: Alexandria, VA. Available at <https://challengercenter.webex.com/challengercenter/ldr.php?AT=pb&SP=MC&rID=19596247&rKey=9f50060c30e5fe92>

Reese, D. D. (2011, November). MoonGazers: CyGaMEs Selene, MoonWorld, and MoonGazers I. Webinar presented for the Challenger Center for Space Science Education: Alexandria, VA. Available at <https://challengercenter.webex.com/challengercenter/ldr.php?AT=pb&SP=MC&rID=19384972&rKey=8e4f013fc84cb673>

Reese, D. D. (2011, October). MoonGazers, CyGaMEs Selene, and MoonWorld I. Webinar presented for the NASA Ignite! Summer of Innovation, Bloomington, IN. Available at <http://media.doe.in.gov/WebEx/ois/2011-09-27-IgniteImpWkshpIntroSeleneMoonGazerMoonWorld/index.html>

Reese, D. D. (2011, September). MoonGazers, CyGaMEs Selene, and MoonWorld II. Webinar presented for the Internet 2 K-20 Member Meeting.

Reese, D. D., & Shiplett, T. (2011, June). *Robotics Summer Camp: MoonWorld*. Workshop. Wheeling Jesuit University. Wheeling, WV.

Reese, D. D., & Wood, C. A. (2011, July). *Selene, MoonWorld, and MoonGazers*. Talk presented at ModSim, Hampton, VA.

Reese, D.D. (2011, December). *Selene, MoonWorld, and MoonGazers*. Professional development workshop for afterschool program educators. Wheeling Jesuit University. Wheeling, WV.

Reese, D. D., Shiplett, T., & Wood, C. A. (2011, June). *STEM Education Camp: MoonGazers, Selene, and MoonWorld*. Workshop. Wheeling Jesuit University. Wheeling, WV.

- **2007–Present**—Board member, Transformational Change Team, Association for Educational Communications and Technology (AECT) FutureMinds Initiative.
- **2003-2006**—Ex-Officio board member, Editorial Board, Virtual Design Center, NASA-sponsored Classroom of the Future, Erma Ora Byrd Center for Educational Technologies, Wheeling Jesuit University.
- **2003-2006**—Board of Directors, International Visual Literacy Association.
- **2003-2011**—Institutional Review Board, Wheeling Jesuit University, Wheeling, West Virginia.
- **2002**—Appointed president – Instructional Technology Student Organization (ISTA), Virginia Polytechnic Institute and State University
- **2000-2001**—Committee member - Professional Development Portfolio Standards and Prototype Committee, Instructional Technology Program, Teaching and Learning, Virginia Polytechnic Institute and State University.
- **1996**-Committee member - Platform Committee, Democratic Party--county and district
- **1994-1996**—Tree plantings - Lee County Conservation Board; KMS TAG
- **1991-1996**—Prairie plantings - Lee County Conservation Board; KMS TAG
- **1995**-Established Keokuk Middle School Cultural Diversity Student Advisory Board, assembly and field trips
- **1994-1995**—Executive Committee, secretary, family advocate - Habitat for Humanity
- **1994**—Keokuk Business and Professional Woman of the Year nominee
- **1991-1996**—Council member - Keokuk Fine Arts Council
- **199-1992**—Project Wood Duck - Lee County Conservation Board and KMS TAG (Keokuk Middle School Talented and Gifted) -- received national recognition
- **1990-1996**—Director - Tri-State Children’s Dance Theater (six years of annual summer dance camps, school residencies, performances and workshops)
- **1988-1990**—Council member - Ames Community Arts Council
- **1987-1989**—Council member, treasurer - Ames Community Youth Orchestra
- **1985**—Soccer coach, Ames Arts and Recreation
- **Peer reviewer for**
 - Conference
 - ❖ American Educational Research Association
 - ❖ Association for Educational Communications and Technology

- ❖ Gamification 2013 (<https://uwaterloo.ca/stratford-campus/conferences/gamification-2013>)
- ❖ International Conference of the Learning Sciences
- ❖ International Visual Literacy Association
- Edited book
 - ❖ *Emerging Technologies for the Classroom: A Learning Sciences Perspective*
 - ❖ *Selected readings of the International Visual Literacy Association* (multiple years, each year's volume has a different name)
- Journals
 - ❖ *Bulletin of Science, Technology & Society*
 - ❖ *Interacting with Computers*
 - ❖ *International Journal of Technology, Knowledge, and Society*
 - ❖ *Journal of Educational Computing Research*
 - ❖ *Journal of Visual Literacy*
 - ❖ *Social Science Research*

PROFESSIONAL ORGANIZATION MEMBERSHIPS:

- **2008-2010**—Association for Psychological Science
- **2004-2007**—International Society of the Learning Sciences (ISLS)
- **2003-present**—Association for Educational Communications and Technology (AECT) and SIGS/Divisions
- **2002-2007**—International Visual Literacy Organization (IVLA)
- **1999-present**—American Educational Research Association (AERA), Divisions and SIGs