

March 2017

## VITA

### JAMES WILLIAM PELLEGRINO

#### Present Position

Liberal Arts and Sciences Distinguished  
Professor of Cognitive Psychology and  
Distinguished Professor of Education  
Co-Director, Learning Sciences Research  
Institute (LSRI)  
University of Illinois at Chicago

#### Office Address

Learning Sciences Research Institute  
M/C 057  
1240 West Harrison Street  
Chicago, IL 60607

#### Personal Data

Date of birth: December 20, 1947  
Place of birth: Brooklyn, New York

#### Permanent Address

130 North Garland Court, # 3804  
Chicago, IL 60602

#### Contact Information

312-413-2320 (office voice)  
312-996-2448 (center voice)  
312-413-7441 (center fax)  
312-339-4095 (cell)  
[pellegrino@uic.edu](mailto:pellegrino@uic.edu)

#### Education

Colgate University  
1965-1969 Bachelor of Arts

Major: Psychology

University of Colorado  
1969-1970 Master of Arts

Experimental, Quantitative  
Psychology

University of Colorado  
1971-1973 Doctor of Philosophy

Experimental, Quantitative  
Psychology

#### Awards & Recognition

Colgate University Scholarship  
New York State Regents Scholarship  
Westchester County Golf Association Caddie Scholarship  
Austen Colgate Award  
Phil R. Miller Award in Psychology  
Phi Beta Kappa  
Psi Chi

NIMH Fellow, University of Colorado

Outstanding Young Men in America

National Academy of Sciences – lifetime National Associate

National Academy of Education – elected lifetime member (NAEd Vice President 2013-2020)

American Academy of Arts and Sciences – elected lifetime member

Fellow of American Educational Research Association

1999 Educational Testing Service William H. Angoff Memorial Lecture

2013 AERA Robert L. Linn Distinguished Contributions Award (AERA Division D)

Distinguished University Scholar (2014 – 2017) – University of Illinois

2015 Educational Research Award from Council of Scientific Society Presidents

2016 Educational Testing Service Samuel Messick Memorial Lecture Award

2016 Jason Millman Award from Consortium for Research on Educational Assessment and Teaching Effectiveness (CREATE)

#### Professional Associations and Service

Psychonomic Society, Sigma Xi, Midwestern Psychological Association, Rocky Mountain Psychological Association, Society for Research in Child Development, American Educational Research Association, American Association for the Advancement of Science, New York Academy of Science, Cognitive Science Society, Society for Multivariate Experimental Psychology, Computers in Psychology, Society for Mathematical Psychology, European Association for Research on Learning and Instruction (EARLI), International Society for the Learning Sciences.

National Academy of Sciences and National Research Council:

- 1997-99: *Committee on the Evaluation of the National and State Assessments of Educational Progress* (Committee Chair)
- 1998-99: *Committee on Learning Research and Educational Practice* (Committee Co-chair)
- 1999-01: *Committee on Cognitive Science Foundations of Assessment* (Committee Co-chair)
- 2001-03: *Committee on Improving Learning with Information Technology* (Committee member)
- 2001-03: *Committee on Strategic Education Research Program – Panel on Learning and Instruction Research* (Panel Chair)
- 2003-05: *Committee on Test Design for K-12 Science Achievement* (Committee member)
- 2009-10: *Committee on Science Learning: Games, Simulations and Education* (Committee member)
- 2010-11: *Committee on Framework for New Science Education Standards* (Committee member)
- 2011-12: *Committee on Deeper Learning & 21<sup>st</sup> Century Skills* (Committee Chair)
- 2012-13: *Committee on Developing Assessments of Science Proficiency in K-12* (Committee Co-Chair)
- 2001-08: *Board on Testing and Assessment* (Board Member)

American Educational Research Association

- AERA Presidential Nominating Committee;
- AERA Annual Meeting Program Committee - Section C-6 Program Chair;
- AERA Publications Committee;
- AERA Council (elected Member-at-Large);

- AERA OIA Executive Committee (Chair);
- AERA GPL Committee;
- AERA Panel on Improving Educational Research;
- AERA Research Quality Committee (Chair 2004-05);
- AERA IES Advisory Committee (2005);
- AERA Task Force on Reporting of Research Methods in AERA Publications (2005-06)

AACTE Research and Information Committee; AACTE Government Relations Committee; NCATE Technology Task Force;

NSF, NIMH, OERI Proposal Reviewer; Canada Research Council Proposal Reviewer, Australian Research Council Proposal Reviewer.

Spencer Foundation: Lyle Spencer Award Review Committee (2014-2016)

Institute for Educational Sciences: Cognitive Processes Grant Review Panel (2006-2008)

Educational Testing Service:

- Visiting Research Panel (2006-14; Chair 2008-14; 2017-19)
- Gordon Commission on the Future of Assessment in Education (2011-13, Co-Chair)
- Board of Trustees (2017-2019)

U.S. Department of Education: National Educational Technology Plan (Technical Working Group Member, 2009-10)

Technical Advisory Committees:

- *Race to the Top* Assessment Consortia: SBAC, PARCC, DLM, NCSC
- State Departments of Education: Kansas, Wyoming, New Hampshire, Illinois, New York, Texas; New England Consortium (NECAP); Kentucky
- ETS CBAL Assessment Project
- National Center on Education and the Economy: Excellence for All Initiative (co-Chair)
- U.S. Department of Education Technical Review Panel for the *Race to the Top* Assessment Program

### Professional Experience

1973-78	Assistant Professor in the Department of Psychology and Research Associate in the Learning Research and Development Center, University of Pittsburgh
1978-79	Associate Professor in the Department of Psychology and Research Associate in the Learning Research and Development Center, University of Pittsburgh
1979-83	Associate Professor of Education and Psychology, University of California at Santa Barbara
1983-89	Professor of Education and Psychology, University of California at Santa Barbara
1987	Acting Dean, Graduate School of Education, University of California at Santa Barbara (July - August)
1987-89	Chairman, Department of Education, University of California at Santa Barbara

1989-01	Frank W. Mayborn Professor of Cognitive Studies, Peabody College of Education and Human Development, Vanderbilt University
1989-91	Co-Director, Learning Technology Center, Vanderbilt University
1992-98	Dean, Peabody College of Education and Human Development, Vanderbilt University
1999	Visiting Professor and Visiting Scholar, Stanford University School of Education (April - December)
2001-	Liberal Arts & Sciences Distinguished Professor of Cognitive Psychology and Distinguished Professor of Education, University of Illinois at Chicago; Co-Director, Learning Sciences Research Institute, UIC

### Teaching Interests

Human cognition and knowledge acquisition, mathematics and science learning and assessment, cognitive development, individual differences in cognition, applications of cognitive theory and research and technology to the design of instruction, assessment, and learning environments.

### Research Interests

Human learning and memory, individual and developmental differences in human cognition, computational models of cognitive processes and knowledge structures, applications of cognitive research and technology to the design of learning environments, assessment designs for educational settings.

### Editorial Positions

Editor:	<u>Peabody Journal of Education</u> , 1995-2000
Associate Editor:	<u>Review of Educational Research</u> , 1980-1984 <u>Journal of Engineering Education</u> , 2007-
Consulting Editor:	<u>Journal of the Learning Sciences</u> , 2009- <u>Journal of Engineering Education</u> , 2006-2007 <u>Review of Research in Education</u> , 2005-2008 <u>Educational Evaluation and Policy Analysis</u> , 2003-2009 <u>Cognition &amp; Instruction</u> , 2002- <u>Journal of Technology, Learning and Assessment</u> , 2002- <u>Learning and Individual Differences</u> , 1987-2002; 2012- <u>Educational Researcher</u> , 1999-2001 <u>Behavior Research Methods, Instruments and Computers</u> , 1975-1992 <u>Child Development</u> , 1982-1984 <u>Intelligence</u> , 1984-1992 <u>Journal of Educational Psychology</u> , 1984-1985, 1990-1992; 2008-2009 <u>Journal of Experimental Psychology: General</u> , 1975-1981
Editorial Associate:	<u>The Behavioral and Brain Sciences</u>

Guest Consulting Editor: [Journal of Experimental Psychology: Human Learning and Memory](#)  
[Journal of Experimental Child Psychology](#)  
[Memory & Cognition](#)  
[Psychological Review](#)  
[Cognitive Psychology](#)  
[Journal of Memory and Language](#)  
[Journal of Educational Psychology](#)  
[Educational Researcher](#)  
[Educational Psychologist](#)  
[American Educational Research Journal](#)  
[Child Development](#)  
[American Psychologist](#)  
[Cognition and Instruction](#)  
[Science](#)

#### Grant Support

1973-1979	Research supported by contracts between NIE and Learning Research and Development Center, University of Pittsburgh
1976-1978	With Robert Glaser and Alan Lesgold, NATO Award for Conference on Cognitive Psychology and Instruction, Amsterdam, 1977.
1979-1981	"Spatial Visualization Abilities in Technical Skills," Advanced Research Projects Agency, Principal Investigator.
1981-1984	"Components of Spatial Aptitude and Expertise," Office of Naval Research, Principal Investigator.
1982-1984	"Children's Acquisition of Spatial Knowledge of a Large-Scale Environment," National Science Foundation, Co-Principal Investigator with T. R. Smith and R. Golledge.
1983-1986	"Individual Differences in Skill Acquisition: Information Processing Efficiency and the Development of Automaticity," Department of the Air Force, Principal Investigator.
1985-1986	"Computer Based Assessment of Spatial Abilities," Naval Personnel Research and Development Center, Co-Principal Investigator with E. B. Hunt.
1985-1987	"The Acquisition and Integration of Components of Spatial Knowledge by Children and Adults," National Science Foundation, Co-Principal Investigator with R. Golledge.
1986-1990	"Computer Based Assessment of Complex Cognitive Abilities," Office of Naval Research, Co-Principal Investigator with E. B. Hunt.
1987-1990	"Analysis of Navigation Without Sight," National Institute of Health, Co-Principal Investigator with J. Loomis, R. Golledge, and R. Klatzky.
1987-1989	"Hand Configuration and Object Processing: An Integrated System," Air Force Office of Scientific Research, Co-Principal Investigator with R. Klatzky.

- 1988-1990 "Integrating Spatial Knowledge: The Transition from Landmark to Route to Configurational Knowledge," National Science Foundation, Co-Principal Investigator with R. Golledge.
- 1991-1994 "Designs for Generative Learning," James S. McDonnell Foundation, Co-Principal Investigator with J. Bransford, S. Goldman, T. Hasselbring, & J. Voss.
- 1991-1992 "Components of Information Coordination," Office of Naval Research, Principal Investigator.
- 1991-1993 "Assessing Competence in Electronic Troubleshooting," Office of Naval Research, Co-Principal Investigator with G. Biswas & S. Goldman.
- 1992-1997 "SMART Assessments: Scientific and Mathematical Arenas for Refining Thinking," National Science Foundation, Co-Principal Investigator with N. Vye.
- 1993-1996 "Schools For Thought Classrooms," James S. McDonnell Foundation, Co-Principal Investigator with J. Bransford & S. Goldman.
- 1996-1998 "Ernest Boyer Educational Technology Summits," Corporation for Public Broadcasting, Principal Investigator.
- 1997-2001 "The Challenge Zone; High Standards in Mathematics and Science," National Science Foundation, Co-Principal Investigator with J. Bransford, N. Vye, & B. Sherwood.
- 1997-2003 "The K-12 Learning Consortium," Atlantic Philanthropies, Co-Principal Investigator with J. Bransford, S. Goldman, & T. Hasselbring.
- 1997-2000 "National Partnership for Excellence and Accountability in Teaching," U.S. Department of Education, Principal Investigator.
- 1999-2003 "Information Technology and Teacher Education: Leveraging the Power of Learning Theory and Technology," U.S. Department of Education, Co-Principal Investigator with J. Bransford.
- 2000-2003 "Teacher Education and Technology: What Works and Why," Atlantic Philanthropies, Principal Investigator.
- 2002-2008 "Teaching Teachers To Use Technology: What Works and Why," Atlantic Philanthropies, Co-Principal Investigator with S. Goldman
- 2003-2004 "Assessment Development Project in Mathematics and Science," Chicago Public Schools, Principal Investigator.
- 2004-2008 "Designing Learning Environments for Teaching Scientific Argumentation and Mathematical Reasoning with Geographic Data," National Science Foundation, Co-Principal Investigator with J. Radinsky & S. Goldman
- 2004-2006 "Project TRUST: Technology Resources for Urban School Transformation," U.S. Department of Education, Co-Principal Investigator with Kim Lawless, Susan Goldman & Louanne Smolin.
- 2004-2008 "Pedagogical Agents: Question Answering Technology for

- Inquiry-Based Study of Bioinformatics," National Science Foundation, Co-Principal Investigator with Dan Roth of University of Illinois, Urbana-Champaign.
- 2004-2009 "NCLT: National Center for Learning and Teaching in Nanoscience and Engineering," National Science Foundation, Investigator on UIC subcontract with Tom Moher as UIC PI and Bob Chang from Northwestern University as Overall Project PI.
- 2004-2007 "Development of a Benchmark Assessment System to Support the Chicago Mathematics and Science Initiative," Chicago Public Schools, Principal Investigator.
- 2005-2006 "Assessment of Teacher Quality and Performance," NCREL/Learning Point Associates, Principal Investigator.
- 2005-2007 "Professional Development Support for Implementing Curriculum-Based Assessment within the CPS Math-Science Initiative," Chicago Community Trust, Principal Investigator.
- 2005-2010 "Assessment of Readers Struggling to Comprehend Multiple Sources of Information," Institute for Educational Sciences, USDOE, Co-Principal Investigator with Kim Lawless, Susan Goldman, Kim Gomez, & Ev Smith.
- 2005-2008 "Making the Invisible Visible: Students' and Teachers' Knowledge of States and State Changes," National Science Foundation, Co-Principal Investigator with N. Stein, PI U. Chicago, & J. Wiley, UIC.
- 2006-2009 "From Research to Practice: Redesigning AP Science Courses to Advance Science Literacy and Support Learning with Understanding," National Science Foundation, Principal Investigator. (Project is funded through the College Board; M. Reckase, Michigan State, & Jeanne Pemberton, Univ. of Arizona, Co-Principal Investigators).
- 2008-2014 "Evaluating the Cognitive, Psychometric, and Instructional Affordances of Curriculum-Embedded Assessments: A Comprehensive Validity-Based Approach," National Science Foundation, Principal Investigator, Co-PIs Susan Goldman, Louis DiBello & Kimberly Gomez.
- 2007-2009 "Comprehensive Program for Struggling Algebra Students," Chicago Community Trust, Co-Principal Investigator with Marty Gartzman, Susan Goldman and Danny Martin.
- 2008-2012 "Research on Student Understanding of Solution Phenomena in College Chemistry," National Science Foundation, Co-Principal Investigator with Don Wink and Susan Goldman.
- 2009-2015 "The Cognitive, Psychometric, and Instructional Validity of Curriculum-Embedded Assessments: In-depth Analyses of the Resources Available to Teachers Within Everyday Mathematics," Institute of Education Sciences, USDOE, Principal Investigator, Co-PIs Lou DiBello, Susan Goldman, Alison, Castro and William Stout.
- 2009-2014 "An Architecture of Intensification: Building a Comprehensive Program for Struggling Students in Double-Period Algebra Classes," National Science Foundation, Co-Principal Investigator with Marty Gartzman, Susan Goldman, and Alison Castro.

- 2009–2014 “Integrating Cognition and Measurement with Conceptual Knowledge: Establishing the Validity and Diagnostic Capacity of Concept Inventories,” National Science Foundation, Co-Principal Investigator with Lou DiBello.
- 2009–2012 “The Advanced Placement Course Redesign Effort: A Time-Critical Analysis of Assessment Development Processes and Outcomes,” National Science Foundation, Principal Investigator.
- 2009–2014 “ciHUB a Virtual Community to Support Research, Development, and Dissemination of Concept Inventories,” National Science Foundation, Co-Principal Investigator with Lou DiBello.
- 2010-2016 “Reading for Understanding Across Grades 6 through 12: Evidence-based Argumentation for Disciplinary Learning.” Institute of Education Sciences, USDOE, Co-PI with Susan Goldman, Kim Lawless, Cyndy Shanahan, Jenny Wiley, and Taffy Raphael.
- 2010-2016 “National Center for Cognition and Mathematics Instruction,” Institute of Education Sciences, USDOE, Principal Investigator with Susan Goldman.
- 2010-2015 “Establishing the Validity and Diagnostic Capacity of Facet-Based Science Assessments.” Institute of Education Sciences, USDOE, Co-PI with Lou DiBello, Susan Goldman, and William Stout.
- 2010-2013 “Climate Literacy Zoo Education Network.” National Science Foundation, Co-Principal Investigator with Susan Goldman Tom Moher, Leilah Lyons, Steve Forman, and Tom Theis.
- 2013-2017 “Collaborative Research: Designing Assessments in Physical Science Across Three Dimensions.” National Science Foundation, Principal Investigator with Louis DiBello.
- 2013-2017 “Improving Formative Assessment Practices: Using Learning Trajectories to Develop Resources that Support Teacher Instructional Practice and Student Learning in CMP2.” National Science Foundation, Co-Principal Investigator with Alison Castro Superfine, Mara Martinez & Susan Goldman.
- 2014-2018 “Assessing the Efficacy of Intensified Algebra—A Technology Enhanced Model of Double-dose Algebra I for Underprepared Ninth Graders.” National Science Foundation, Principal Investigator with co-PIs Susan Goldman and James Lynn
- 2015-2017 “Designing Next Generation Assessments to Support the Teaching and Learning of Life Science.” Gordon and Betty Moore Foundation, Principal Investigator with co-PI Louis DiBello
- 2016-2019 “Assessment Literacy for the Next Generation Science Standards: Developing Teachers' Knowledge and Practices.” National Science Foundation, Co-Principal Investigator with Donald Wink and Susan Goldman.
- 2016-2017 “Analysis of the Assessment of Financial Literacy.” Subcontract with the University of Chicago, Principal Investigator.

### Publications



1967	A simple telemetric method for monitoring cardiac function in small animals, with N. Longo.	<u>Perceptual and Motor Skills</u> , 1967, <u>24</u> , 512-514.	Journal Article
1971	<u>Some deficiencies in interaction analysis based on unequal Ns</u> , with W. F. Battig.	(Program on Verbal Learning Report No. 8). Boulder: University of Colorado, Institute for the Study of Intellectual Behavior, June 1971.	Technical Report
1971	A general measure of organization in free recall for variable unit size and internal sequential consistency.	<u>Behavior Research Methods &amp; Instrumentation</u> , 1971, <u>3</u> , 214-246.	Journal Article
1972	Effects of intralist response formal similarity upon paired associate transfer and retroactive inhibition.	<u>Journal of Experimental Psychology</u> , 1972, <u>92</u> , 134-142.	Journal Article
1972	A Fortran IV program for analyzing higher order subjective organization units in free recall learning.	<u>Behavior Research Methods &amp; Instrumentation</u> , 1972, <u>4</u> , 215-217.	Journal Article
1972	Effects of semantic list structure differences in free recall, with W. F. Battig.	<u>Psychonomic Science</u> , 1972, <u>29</u> , 65-67.	Journal Article
1973	Free and cued recall as a function of different levels of word processing, with M. S. Mondani, & W. F. Battig.	<u>Journal of Experimental Psychology</u> , 1973, <u>101</u> , 324-329.	Journal Article
1973	<u>The Colorado concreteness and imagery norms</u> , with C. J. Posnansky et al.	(Program on Cognitive Factors in Human Learning and Memory Report No. 10). Boulder: University of Colorado, Institute for the Study of Intellectual Behavior, July 1973.	Technical Report
1974	Input sequence and grouping in free recall learning and organization, with C. Chapman & W. F. Battig.	<u>American Journal of Psychology</u> , 1974, <u>87</u> , 565-577.	Journal Article
1974	Free recall performance as a function of overt rehearsal frequency, with G. O. Einstein, M. S. Mondani, & W. F. Battig.	<u>Journal of Experimental Psychology</u> , 1974, <u>103</u> , 440-449.	Journal Article
1974	Organizational attributes in list acquisition and retention.	<u>Journal of Experimental Psychology</u> , 1974, <u>103</u> , 230-239.	Journal Article
1974	Relationships among higher order organizational measures and free recall, with W. F. Battig.	<u>Journal of Experimental Psychology</u> , 1974, <u>102</u> , 463-472.	Journal Article
1974	The generation and recognition components of encoding specificity, with P. M. Salzberg.	<u>Bulletin of the Psychonomic Society</u> , 1974, <u>4</u> , 9-11.	Journal Article
1975	The effects of experimenter-imposed organization on long-term	<u>Journal of Experimental Psychology: Human Learning and Memory</u> , 1975, <u>1</u> ,	Journal Article

- forgetting, with T R. Barrett, W. Maier, & B. R. Ekstrand. 480-490.
- 1975 Comments on episodic memory: When recognition fails, with L. L. Light, & G. A. Kimble. Journal of Experimental Psychology: General, 1975, 1, 30-36. Journal Article
- 1975 A reply to Frender and Doubilet on the measurement of clustering. Psychological Bulletin, 1975, 2, 66-67. Journal Article
- 1975 Input order and semantic structure as determinants of free recall, with T. Barrett. American Journal of Psychology, 1975, 88, 321-332. Journal Article
- 1975 Encoding specificity in cued recall and context recognition, with P. M. Salzberg. Journal of Experimental Psychology: Human Learning and Memory, 1975, 1, 261-270. Journal Article
- 1975 Encoding specificity in associative processing tasks, with P. M. Salzberg. Journal of Experimental Psychology: Human Learning and Memory, 1975, 1, 538-548. Journal Article
- 1975 Short-term retention of pictures and words: Evidence for dual coding systems, with A. W. Siegel, & M. Dhawan. Journal of Experimental Psychology: Human Learning and Memory, 1975, 1, 95-102. Journal Article
- 1975 The role of list information in free recall transfer, with J. Petrich, & M. Dhawan. Journal of Experimental Psychology: Human Learning and Memory, 1975, 1, 326-336. Journal Article
- 1975 Developmental changes in free recall and serial learning of categorically structured lists, with C. J. Posnansky. Bulletin of the Psychonomic Society, 1975, 5, 361-364. Journal Article
- 1976 Process training derived from a computer simulation theory, with T. Holzman, & R. Glaser. Memory & Cognition, 1976, 4, 349-356. Journal Article
- 1976 Differential distraction effects in short-term and long-term retention of pictures and words, with A. W. Siegel, & M. Dhawan. Journal of Experimental Psychology: Human Learning and Memory, 1976, 2, 541-547. Journal Article
- 1976 Short-term retention of pictures and words as a function of type of distraction and length of delay interval, with A. W. Siegel, & M. Dhawan. Memory & Cognition, 1976, 4, 11-15. Journal Article
- 1977 Acoustic and semantic interference effects in words and pictures, with M. Dhawan. Memory & Cognition, 1977, 5, 340-346. Journal Article
- 1977 Processing domain, encoding elaboration, and memory trace Journal of Verbal Learning and Verbal Behavior, 1977, 16, 29-43. Journal Article

- strength, with S. R. Goldman.
- 1977 Response generation norms for verbal analogies, with A. L. Ingram. (Report No. 1977/2) Pittsburgh: University of Pittsburgh, Learning Research and Development Center, 1977. Technical Report
- 1977 On mice and men. (Review of Fundamentals of learning, by J. P. Houston). Contemporary Psychology, 1977, 22, 180-182. Book Review
- 1977 List discrimination processes during transfer in free recall, with J. Petrich. American Journal of Psychology, 1977, 90, 419-429. Journal Article
- 1977 Developmental changes in free recall: The interaction of task structure and age, with C. J. Posnansky, & G. Vesonder. Journal of Experimental Child Psychology, 1977, 24, 86-96. Journal Article
- 1977 Picture-word differences in decision latency: An analysis of single and dual memory models, with R. R. Rosinski, H. L. Chiesi, & A. W. Siegel. Memory & Cognition, 1977, 5, 383-396. Journal Article
- 1977 Developmental changes in the semantic processing of pictures and words, with R. R. Rosinski, & A. W. Siegel. Journal of Experimental Child Psychology, 1977, 23, 282-291. Journal Article
- 1978 A biased test of the encoding shift hypothesis, with J. H. Bisanz, R. V. Kail, & A. W. Siegel. Developmental Psychology, 1978, 14, 567-568. Journal Article
- 1978 A letter to be read in a future time, with R. Glaser, & A. M. Lesgold. Educational Psychologist, 1978, 13, 79-85. Journal Article
- 1978 Uniting cognitive process theory and differential psychology: Back home from the wars, with R. Glaser. Intelligence, 1978, 2, 305-319. Journal Article
- 1978 Some directions for a cognitive psychology of instruction, with R. Glaser, & A. M. Lesgold. In A. M. Lesgold, J. W. Pellegrino, S. D. Fokkema, & R. Glaser (Eds.), Cognitive psychology and instruction, New York: Plenum, 1978. Book Chapter
- 1978 Hunting for individual differences in cognitive processes: Verbal ability and semantic processing of pictures and words, with T. W. Hogaboam. Memory & Cognition, 1978, 6, 189-193. Journal Article
- 1978 Cognitive psychology and instruction, with A. M. Lesgold, S. D. Fokkema, & R. Glaser (Eds.). New York: Plenum, 1978. Book
- 1978 Bridge over troubled waters, with D. R. Lyon. (Review of Intelligence, Contemporary Psychology, 1978, 23, 65-67. Book Review

- information processing, and analogical reasoning, by R. J. Sternberg.).
- 1978 Handbook of semantic word norms with M. Toglia, W. F. Battig, D. Barrow, D. S. Cartwright, C. J. Posnansky, T. J. Moore, & G. A. Camilla. Hillsdale, NJ: Lawrence Erlbaum, 1978. Book
- 1979 Developmental changes in the speed and effects of acoustic and semantic encoding, with J. H. Bisanz, R. V. Kail, & A. W. Siegel. Bulletin of the Psychonomic Society, 1979, 14, 209-212. Journal Article
- 1979 Information contained in the encoded representation of the stimulus, with H. L. Chiesi. Psychological Reports, 1979, 44, 199-211. Journal Article
- 1979 Cognitive process analysis of aptitude: The nature of inductive reasoning tasks, with R. Glaser. Bulletin de Psychologie, 1979, 603-615. Journal Article
- 1979 The locus of sex differences in spatial ability, with R. V. Kail, & P. Carter. Perception and Psychophysics, 1979, 26, 182-186. Journal Article
- 1979 Cognitive correlates and components in the analysis of individual differences, with R. Glaser. Intelligence, 1979, 3, 187-214. (Also reprinted in R. Sternberg and D. K. Detterman (Eds.), Intelligence: Perspectives on theory and measurement. Norwood, NJ: Ablex, 1979). Journal Article
- 1979 Processes, products and measures of memory organization, with A. L. Ingram. In C. R. Puff (Ed.), Memory organization and structure. New York: Academic Press. Book Chapter
- 1979 The components of a componential analysis, with D. R. Lyon. Intelligence, 1979, 3, 169-186. Journal Article
- 1980 Developmental changes in mental rotation, with R. V. Kail, & P. Carter. Journal of Experimental Child Psychology, 1980, 29, 102-116. Journal Article
- 1980 Components of geometric analogy solution, with T. M. Mulholland, & R. Glaser. Cognitive Psychology, 1980, 12, 252-284. Journal Article
- 1980 Components of inductive reasoning, with R. Glaser. In R. E. Snow, P. A. Federico, & W. Montague (Eds.), Aptitude, learning and instruction: Cognitive process analyses. Hillsdale, NJ: Lawrence Erlbaum. Book Chapter
- 1980 Three perspectives on intelligence. The Behavioral and Brain Sciences, 1980, 3, 598-599. Journal Commentary

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|------|---|--|-----------------|
| 1982 | Improving the skills of learning, with R. Glaser.   | In D. K. Detterman & R. J. Sternberg (Eds.), <u>How much and how can intelligence be increased</u> . Norwood, NJ: Ablex.     | Book Chapter    |
| 1982 | Analyzing aptitudes for learning: Inductive reasoning, with R. Glaser.  | In R. Glaser (Ed.), <u>Advances in instructional psychology, Vol. II</u> . Hillsdale, NJ: Lawrence Erlbaum.                  | Book Chapter    |
| 1982 | Developmental and individual differences in verbal analogical reasoning, with S. Goldman, P. Parseghian, and R. Sallis. | <u>Child Development</u> , 1982, <u>53</u> , 550-559.  | Journal Article |
| 1982 | The analysis of organization and structure in free recall, with L. J. Hubert.   | In C. R. Puff (Ed.), <u>Handbook of research methods in human memory and cognition</u> . New York: Academic Press.           | Book Chapter    |
| 1982 | Process analyses of spatial aptitude, with R. V. Kail.  | In R. J. Sternberg (Ed.), <u>Advances in the psychology of human intelligence, Vol. 1</u> . Hillsdale, NJ: Lawrence Erlbaum. | Book Chapter    |
| 1982 | Cognitive dimensions of numerical rule induction, with T. Holzman & R. Glaser.  | <u>Journal of Educational Psychology</u> , 1982, <u>74</u> , 360-373.  | Journal Article |
| 1982 | Computational process modeling of spatial cognition and behavior, with T. R. Smith & R. G. Golledge.                    | <u>Geographical Analysis</u> , 1982, <u>14</u> , 305-325.  | Journal Article |
| 1983 | Developmental and individual differences in verbal and spatial reasoning, with S. R. Goldman.                           | In R. F. Dillon & R. R. Schmeck (Eds.), <u>Individual differences in cognition</u> , New York: Academic Press.               | Book Chapter    |
| 1983 | Developmental change and invariance in semantic processing, with D. Gitomer & J. Bisanz.                                | <u>Journal of Experimental Child Psychology</u> , 1983, <u>35</u> , 56-80.   | Journal Article |
| 1983 | Cognitive variables in series completion with T. Holzman & R. Glaser.   | <u>Journal of Educational Psychology</u> , 1983, <u>75</u> , 602-617.  | Journal Article |
| 1983 | The relationship between androgen levels and human spatial abilities, with V. Shute, L. Hubert, & R. Reynolds.          | <u>Bulletin of the Psychonomic Society</u> , 1983, <u>21</u> , 465-468.  | Journal Article |
| 1984 | Deductions about induction: Analyses of developmental and individual differences, with S. R. Goldman.                   | In R. J. Sternberg (Ed.), <u>Advances in the psychology of human intelligence, Vol. 2</u> . Hillsdale, NJ: Lawrence Erlbaum. | Book Chapter    |
| 1984 | Individual differences in complex spatial processing, with R. Mumaw.  | <u>Journal of Educational Psychology</u> , 1984, <u>76</u> , 920-939.  | Journal Article |

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|------|--|--|--------------------|
| 1984 | Context and novelty in an integrated theory of intelligence, with S. Goldman.  | <u>Behavioral and Brain Sciences</u> , 1984, <u>7</u> , 297-298.   | Journal Commentary |
| 1984 | Different slopes for different folks: Process analysis of spatial aptitude, with R. J. Mumaw, R. V. Kail, & P. Carter. | <u>Memory &amp; Cognition</u> , 1984, <u>12</u> , 515-521.   | Journal Article    |
| 1984 | Inductive reasoning ability.   | In R. J. Sternberg (Ed.), <u>Human abilities: An information processing approach</u> . San Francisco: Freeman.   | Book Chapter       |
| 1984 | Understanding spatial ability, with D. Alderton & V. Shute.  | <u>Educational Psychologist</u> , 1984, <u>19</u> , 239-253.   | Journal Article    |
| 1985 | Analyses of spatial aptitude and expertise, with R. J. Mumaw & V. Shute.   | In S. Embretson (Ed.), <u>Test design: Developments in psychology and psychometrics</u> . New York: Academic Press.  | Book Chapter       |
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2003	Setting Research Agendas in Science, Mathematics, and Technology Education: The National Research Council's <i>How People Learn</i> Report	In <u>Proceedings of the 2<sup>nd</sup> AAAS Technology Education Workshop</u> . Washington, DC: AAAS. <a href="http://www.project2061.org/meetings/technology/tech2/Pellegrino.htm">http://www.project2061.org/meetings/technology/tech2/Pellegrino.htm</a>	Conference Proceedings
2004	The evolution of educational assessment: Considering the past and imagining the future.	William Angoff Memorial Lecture, Policy Report Series, Educational Testing Service, Princeton, NJ. Available at: <a href="http://www.ets.org/Media/Research/pdf/PICANG6.pdf">http://www.ets.org/Media/Research/pdf/PICANG6.pdf</a>	Invited Distinguished Lecture

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2005	Theory, Level, and Function: Three dimensions for understanding transfer and student assessment, with D. T. Hickey	In J. P. Mestre (Ed.), <u>Transfer of learning from a modern multidisciplinary perspective</u> (pp. 251-293). Greenwich, CO: Information Age Publishing.	Book Chapter
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