

LAWRENCE M. RUDNER

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Dr. Rudner is a highly experienced, internationally recognized, well-published senior research manager with more than 25 years of advanced experience in diverse organizations. Of special interest are his abilities to recognize business and professional opportunities, identify needed steps for activation, manage contract and in-house staff, provide high-quality business solutions, and to explain critical statistical and technical concepts to both professional and lay audiences. He also possesses advanced expertise in research methods, psychometrics, data analysis, and computer programming languages.

EDUCATION:

- B.S. Mathematics, Syracuse University (cum laude), 1971.
- M.S. Education, Western Connecticut State University, 1972.
- Ph.D. Psychology and Evaluation (Research Methods), Catholic Univ. (honors), 1977.
- M.B.A. Finance & Entrepreneurship, University of Maryland (Westinghouse Scholar and University awardee), 1991.

AREAS OF EXPERTISE:

Management: Program planning, system development, budget preparation, research personnel management, recruiting, contract monitoring, RFP development, proposal development.

Research: Psychometrics; univariate, multivariate and non-parametric statistics; computer modeling; research and experimental design; meta-analysis; survey methods; large-scale sampling; test design and validation, computer adaptive testing methods.

Technology: Expert in computer programming, including Active Server Pages, PowerBasic & JavaScript, web design and development, networking, information servers. Extensive knowledge of statistical software design and commercial computing and graphic packages.

EXPERIENCE:

2004-pres **Vice President, Research and Development,** Graduate Management Admission Council, McLean, VA 2210 (the non-profit testing company sponsoring the Graduate Management Admission Test, GMAT®)

As a member of the Senior Management team, responsible for managing the Department of Research and Development including the Psychometric Research and the Market Research and Analysis Divisions, establishing priorities, systematically identifying issues, responding to Board priorities, gathering information and supporting data, providing mission-critical summaries and syntheses, and assuring that all work is completed on-time and of the highest possible scientific quality.

Major accomplishments include: recruiting staff and building a widely respected department of 12 scientists authoring 30 scholarly reports and surveying more than 25,000 stakeholders

annually; implementing a comprehensive research agenda; managing and personally providing quality control for the transfer of the company's intellectual property to a new vendor; designing, creating, and field-testing two new assessment products; designing, creating, and implementing a suite of new test security software products; designing and implementing the test development vendor monitoring procedures; authoring new material for the *Official Guide to the GMAT®* (gross sales over \$2.5M); positioning of the GMAT® as a specialized assessment; and the design and preparation of materials in response to competitive threats.

1993 - 2004 - **Director**, ERIC Clearinghouse on Assessment and Evaluation, and **Assistant Director**, Maryland Assessment Research Center for Education Success, Department of Measurement and Statistics, University of Maryland, College Park and The Catholic University of America, Washington, DC (faculty)

Procured funding for and directed the federal ERIC Clearinghouse on Assessment and Evaluation through four competition cycles. ERIC/AE became the primary source of assessment information for both the academic and non-academic communities. Key activities included hiring and managing a staff of 8 professionals; developing 2 major reports, 10 briefing papers, and 1,500 bibliographic citations annually.

Major accomplishments include: creating an Internet site frequently cited as among the top sites for education and among the 10,000 most frequented sites on the entire Internet; co-editing books on testing published by the Education Writer's Association and the National Education Association. Recipient of the National Council on Measurement in Education Award for excellence in the dissemination of measurement concepts to the public.

Elected the Executive Director of the ERIC system and, as such, developed the agenda for the system's annual meeting of 75 clearinghouse administrators; represented the entire ERIC system in meetings with senior officials from the US. Department of Education, Library of Congress, U.S. House of Representatives, and the U.S. Senate.

As a faculty member, taught doctoral level courses in statistics, evaluation, and test construction; developed research grant and contract proposals and conducted research for several projects including on-line computer adaptive testing, essay scoring, data analysis verification, home schooling, early Head Start, and trend score analysis. Annually received "Rainmaker Awards" as one of the top 100 faculty in terms of research funds brought in to the University of Maryland and as one of the top 10 at The Catholic University of America.

1999-pres - **Creator, Co-Editor and Publisher**, *Practical Assessment, Research and Evaluation*

Created what is now the most widely read scholarly journal in the field. As of March 2009, the 202 titles in this journal had been retrieved more than 6,500,000 times since November 1999, when the journal was established.

1988 - 1993 - **Senior Fellow**, American Institutes for Research, Washington, DC (contract research firm)

Designed, secured funding for, staffed and managed a variety of high visibility and politically sensitive contract research projects.

1985-1990 **Founder and President**, LMP Associates, Inc.

Coordinated proposal development activities, designed contract specifications and negotiated awards with a variety of funding agencies including the U.S. government, several major businesses, and trade associations for projects involving testing, evaluation, information science, and statistical analysis. Obtained Small Business Innovative Research (SBIR) Phase I and Phase II funding for the development of ICUES, the Intensive Care Unit Evaluation System, a comprehensive software system for ICU data entry and analysis using state-of-the-art statistical methodology and META-STAT, a data entry and analysis program applying effect-size and correlational meta-analysis.

1979 - 1985 **Senior Associate** (GS-15 equiv.), Office of Educational Research and Improvement, U.S. Department of Education

Served as team leader (branch chief) for the Agency's program of Research on Testing and Evaluation and for the National Assessment of Educational Progress (NAEP). Supervised the activities of approximately 120 contracted personnel and 7 internal professional and support personnel. Wrote or supervised the development of over 12 large Request for Proposals (RFP's). Panel member on more than 30 procurements. Monitored federally awarded grants and contracts in the area of testing and evaluation worth over \$7 million annually to assure statistical validity, standards of performance, appropriate expenditures and timeline compliance.

HIGH VISIBILITY PROJECTS

- GMAC Computer Adaptive Testing Conference (June 2007 and June 2009) - This conference conceived by me brings together the top researchers and practitioners for two days of cutting edge discussions on this advanced form of measurement. Approximately 160 people from approximately 40 countries attend each year.
- *Welcome to Idyllia: A Hypothetical Community Deals With School Test Scores* – This is a Fred Friendly seminar, now on public television, that was moderated by Dateline's John Hockenberry and created by the Education Writer's Association. I appeared on a panel with the US Undersecretary of Education, television and newspaper reporters, teacher union officials and other notable experts.
- *What Teachers Should Know about Testing*. Co-edited by L. Rudner and B. Schafer, including several chapters by L. Rudner. Published April 2002 by the National Education Association.
- Computer Adaptive Testing Tutorial (On-line, Interactive: <http://edres.org/scripts/cat>), Still viewed more than 1,000 time per month.
- *Practical Assessment Research and Evaluation (PARE)*, an internationally read, on-line, peer reviewed journal I co-created. More than 6,500,000 downloads since Nov 1999.
- The now defunct ERIC/AE website was ranked by Alexa as among the 10,000 most popular sites on the internet. Each day, 12,000 people viewed more than 65,000 web pages and transferred more than 780 megabytes (equivalent in size to 180 copies of the King James Bible). The site was widely acclaimed, including top ratings from Encyclopedia Britannica, Argus, and most search engines.

- Report on the achievement levels of home schooled students in the United States. The technical paper, published in the *Educational Policy Analysis Archives*, has been viewed more than 160,000 times. Popular versions were distributed by the funding agency to more than 100,000 families. Cited in all major newspapers and in State and Federal legislation, coverage resulted in my one-hour televised appearance on C-SPAN (March 31, 1999).

SPECIAL WORKSHOPS

Test Prep Summit – A workshop about the GMAT® for test preparation companies and an opportunity for them to ask me questions as the Chief Psychometrician for the GMAT®. October 2006 and Oct 2008.

Executive MBA Council Marketing and Admissions Workshops and GMAC Professional Development program Workshops – Workshops about GMAC research and the use of the GMAT® for admissions professionals. Seven times in the past 4 years.

Measurement Decision Theory – A workshop at the Association of Test Publishers annual conference and at two meetings of the Performance Testing Council on the use of decision theory for classification decisions. June 2007, June 2008, February 2009.

ACADEMIC RECOGNITION

Dr. Rudner has received two special career awards - **The Award for Outstanding Dissemination of Educational Measurement Concepts to the Public** from the National Council on Measurement in Education in 2006 and the **Career Achievement Award** from the Association of Test Publishers in 2009.

He conducted some of the first research on several lasting measurement topics, including the use of Item Response Theory to assess item bias (AERA, 1977; JEBS, 1980), parameter invariance (EPM, 1983), assessment of person-fit (JEM, 1983), the validity of a composite measure (EM:IP, 2001), and classification accuracy (PARE, 2002).

Technical reviews of his work have appeared in: *Colloquy, Educational Measurement: Issues and Practice, Journal of Educational Measurement, Buors Mental Measurements Yearbook, National Beauty School Journal, PCM Magazine, Sigma Theta Tau, The Sunday New York Times, and Wall Street Micro Investor.*

His original work has appeared in books and book chapters published by: Army Research Institute, Education Writers Association, InterAmerica, J.A.I. Press, Kluwer Academic Press, National Education Association, National Institute of Education, Springer, U.S. Department of Labor, U.S. Government Printing Office, University of Nebraska Press, and Wayne Green Publishing.

Peer reviewed manuscripts authored or co-authored by Dr. Rudner have appeared in: *Baltimore Sun, Business Education, Capital Ideas, Connecticut Mathematics Journal, Dean's Digest, D-Lib, Education Policy Analysis Archives, Education Week, Educational and Psychological Measurement, Educational Measurement, Encyclopedia of Computer Programs, Government Computer News, Instructor Magazine, Interpreter's Journal, Journal of Behavioral and Educational Statistics, Journal of Educational Measurement, Journal of Official Statistics, Journal of Personnel Evaluation, Journal of Teacher Education, PC Monitor, Practical Assessment, Research and Evaluation, School Administrator, and Volta Review.*

SELECT RECENT PUBLICATIONS

- Rudner, L. (2005). Expected Classification Accuracy. *Practical Assessment Research & Evaluation*, 10(13). (Note: the methodology presented in this paper is the methodology of choice for adherence to the Title I mandate to report accuracy information)
- Rudner, L.M., Garcia, V., & Welch, C. (2006). An Evaluation of the IntelliMetric™ Essay Scoring System. *Journal of Technology, Learning, and Assessment*, 4(4).
- Walston, J.T, Lissitz, R.W., and L.M. Rudner (2006). The Influence of Web-based Questionnaire Presentation Variations on Survey Cooperation and Perceptions of Survey Quality. *Journal of Official Statistics*, 22(2). 271-291.
- Rudner L.M. & J. Peyton (2007). Consider Propensity Scores to Compare Treatments. *Practical Assessment Research & Evaluation*, 11(9).
- Talento-Miller, E., and Rudner, L. (2008). The validity of Graduate Management Admission Test® scores: A summary of studies conducted from 1997 to 2004. *Educational and Psychological Measurement*, 68(1).

MANUSCRIPT REFEREE:

Journal of Educational Measurement (Associate Editor, 1980-86)
Practical Assessment, Research and Evaluation (co-Editor, 1998-)
Applied Measurement in Education (Associate Editor, 1992-)
NCME Newsletter (Associate Editor, 1997-2004)
Journal of Educational Statistics
Psychometrika
Applied Psychological Measurement
Journal of Teacher Education
Registry of Interpreters for the Deaf Journal
American Educational Research Association, Division D - Methodology
National Council on Measurement in Education
U.S. Office of Education
National Institute of Education
National Science Foundation

ORGANIZATIONS:

American Educational Research Association (Chair Telecommunications Committee 1999-2002; created CD-ROM series)
American Psychological Association
American Statistical Association
National Council on Measurement in Education (Finance Committee, 2005-2007; Board member 2008-2011)
Eastern Educational Research Association (Regional Representative 1978 - 1980)
American Evaluation Association
Association of Test Publishers

CERTIFICATIONS:

Teacher of Mathematics, Grades 8-12, Permanent Certification, NY, MA.
Teacher of Elementary School, Grades K-8, Permanent, NY.
Amateur Radio Operators License, Advanced Class (1974-).
Registry of Interpreters for the Deaf (expired)

BOARDS

1987 - 1991	National Advisory Board member, Tennessee Center for Excellence in Teacher Education Evaluation, Cookeville, TN.
1994 -1996	National Advisory Board member, National Center on Substance Abuse, Bethesda, MD
2001 - 2004	(Corporate) Board member, Professional Examination Services, New York, NY
1988 -1993 1996 - 2008	National Advisory Board member, Buros Institute for Mental Measurement, Lincoln, Nebraska.
2004 - 2007	Steering Committee, Educational Resources Information Center, Washington, DC
2006 - 2007	National Advisory Board Member, MBATour, Boston, MA
2006 -	Technical Working Group, National Evaluation of the Comprehensive Technical Assistance Centers, Washington, DC
2008 – 2011	National Council on Measurement in Education (and Chair of the Standards Committee)

CONSULTING, CONTRACTS and GRANTS:

1977	Subcontractor, Department of Health, Education, and Welfare grant, "Language Processing of Black Children". Howard University, Washington, DC.
1978	Subcontractor, National Institute of Education grant, "An Empirical Investigation of Four Methods of Examining Test Items for Bias". California State University, NIE-G-78-0067.
1978	Consultant, California State Education Department grant, "A Technological Approach to Pupil Placement in the Least Restrictive Environment". Applied Research Consultants, Sacramento, CA.
1978	Principal Investigator, National Institute of Education grant, "A Monte-Carlo Investigation of Select Approaches for Biased Item Detection". NIE-G-78-0064.
1978	Subcontractor, Prince Williams County (VA) contract, "A Comparative Analysis of the 45-15 Year Round Schooling Plan and the Traditional Calendar", The Allen Corporation of America, Alexandria, VA. PO-C-08203.
1978	Principal Investigator, Registry of Interpreters for the Deaf contract, "An Evaluation of the RID Re-evaluation Exam. Silver Spring, MD.
1978	Consultant, National Institute of Mental Health project, " Effects of Neonatal Intensive Care", Washington, DC
1979	Consultant, Bureau of Education of the Handicapped grant, "Augmented Interactive Three Dimensional Television as an Aid to Language Learning", Gallaudet College, Washington, DC BEH-6-007.
1979 1980	Subcontractor, Department of Transportation contract, "Validation of the Rear Lighting and Signaling System Field Test". The Allen Corporation of America, Alexandria VA. DOT-HS-701756.

- 1979 Contractor, Registry of Interpreters for the Deaf, Scoring service for two batteries of national certification examinations.
- 1979 Subcontractor, Department of Defense contract, "Undergraduate Jet Pilot Training (UJPT) Effectiveness Evaluation Study", University of Central Florida, Orlando, FL. AE-027911.
- 1979-1986 Contractor, Registry of Interpreters for the Deaf, Membership database creation and maintenance. Silver Spring, MD.
- 1981 Consultant, American Council on Education, Test validation project. Washington, DC.
- 1982 Consultant, Fairfax County Public Schools. Item banking feasibility study. Fairfax, VA.
- 1986 Consultant, Instructor Magazine. Membership survey. New York
- 1986 - 1997 Consultant, Children's Hospital National Medical Center, Office of the Scientific Director Biomedical computer applications. Washington, DC.
- 1987 & 1988 Consultant, *Instructor Magazine*. Membership survey. New York
- 1987-1990 Contractor, Health Care Financing Administration. Evaluating Hospital Effectiveness. Baltimore, MD.
- 1987-2003 Consultant, National Accrediting Commission of Cosmetology Arts and Sciences. Development of a testing policies and test reviews. Washington, DC.
- 1988-1989 Contractor, Secretary's Commission on Workforce Quality and Labor Market Efficiency. US Department of Labor, Washington, DC.
- 1988-1998 Contractor, Victor Stanley, Inc. Dunkirk, MD. Development of an Industrial Robot.
- 1988-1996 Contractor, Washington Regional Transplant Consortium, Falls Church, VA. Technical Support.
- 1988-1991 Consultant, Prince George's County Public Schools. Criterion Referenced Testing Program. Upper Marlboro, MD.
- 1988-1990 Advisor & Expert Witness, *Lawrence, et. al. v South Carolina State Board of Education*, Home School Legal Defense Association, Paedonia Springs, VA.
- 1989 Consultant, Ability to Benefit Testing Policy. American Council on Education, Washington, DC.
- 1989-1993 Contractor, Meta-Analysis of Research Studies. National Cancer Institute, Bethesda, MD. (Phase I and II Small Business Innovative Research awards)
- 1990-1991 Consultant, Secretary of Labor's Commission on Acquiring Needed Skills, Washington, DC.
- 1991-1992 Contractor, The National Assessment of Educational Progress Information Retrieval System. National Center for Educational Statistics, Washington, DC.
- 1991 Contractor, Educational laboratory product evaluation. Office of Educational Research and Improvement, Washington, DC.
- 1991, 1996, 1998 Contractor, Job Demand Studies, National Accrediting Commission for Cosmetology Arts and Sciences, Arlington, VA, and *American Salon* magazine.

- 1992-1993 Grantee, The use of fit statistics in reporting and analyzing NAEP Data. National Center for Educational Statistics, Washington, DC.
- 1992-1997 Contractor. Technical support. National Board for Professional Teaching Standards. Washington, DC.
- 1993 Contractor, Accreditation Standards Validity Studies, National Accrediting Commission for Cosmetology Arts and Sciences, Arlington, VA.
- 1993 Contractor, Accreditation Standards Reliability and Validity Studies, Accrediting Commission for Independent Colleges and Schools, Washington, DC
- 1988-2003 Contractor, ERIC Clearinghouse on Assessment and Evaluation, Office of Educational Research and Improvement.
- 1992-1997 Contractor. Technical support. National Board for Professional Teaching Standards. Washington, DC.
- 1998 Grantee, Home School Legal Defense Association, Analysis of the achievement levels of home school students, Purcellville, VA
- 2000-2005 Contractor, Maryland State Department of Education.
- 2001-2003 Grantee, National Assessment of Educational Progress Secondary Analysis Grants Competition. Automated Essay Scoring using Bayesian Analysis
- 2001-2002 Grantee, U.S. Department of Education Field Initiated Studies, An Evaluation of Measurement Decision Theory.

(others)

MAJOR PUBLISHED REVIEWS OF MY WORK

- Severance, Thomas, "Opinion", (Review of the Ability-to-Benefit Policy Manual developed for the National Accrediting Commission for Cosmetology Arts and Sciences), *National Beauty School Journal*, March 1988.
- Shanker, Albert "Adjusting grades downward" (Review of *What's Happening in Teacher Testing*) *New York Times*, Sunday, November 8, 1987.
- Gross, Sandra "State Assessment Efforts", *Colloquy*, Fall, 1987.
- Brezinski, E. "A Review of the National Assessment of Educational Progress Information Retrieval System", *Journal of Educational Measurement*, 1985, 22,1,73-75.
- "The Meadow-Kendall Social Adjustment Scale" *American Annals of the Deaf*, 1979; *Mental Measurements Yearbook #9, Supplement*, Lincoln, NE: Buros Institute of Mental Measurements, 1988.
- "1988 Award for Outstanding Application of Technology in Nursing" Sigma Theta Tau, November 1988 (with others).
- Nitko, A. & others, "A Review of FINDIT", *Educational Measurement: Issues and Practice*, Summer 1989.
- Frisbee, David, "A Review of *Understanding Achievement Tests*", *Journal of Educational Measurement*, Summer 1992.
- Five star award from Argus Clearinghouse for our assessment pathfinder (see <http://www.clearinghouse.net/>)

SELECT PUBLICATIONS AND REPORTS:

- Rudner, L. (1973). "On the Goldback Conjecture", *Connecticut Mathematics Journal*, December, 1973.
- Rudner, L. (1974) *Simplified Item Analysis*, Danbury, CT: Western Connecticut State College Computer Center.
- Rudner, L. (1975) "The Formative Evaluation of the Structured Language Improvement Project". In Clarence Williams (Ed) *Proceedings of the Gallaudet (College) Symposium on Research in Deafness*, Washington, DC: Gallaudet College.
- Rudner, L. (1976). "Linguistic Presentation of Curriculum and CAI to Hearing Impaired Students. In *Challenge to Educational Technology*, Minneapolis: Association for the Development of Computer-Based Instructional Systems.
- Rudner, L., Bowker, R. & Chambers, J. (1980) "A Reanalysis of the Number of Limited English Proficiency Children estimated by the Children's English and Services Study", in *Report of the Children's English and Services Study*, Arlington, VA: InterAmerica.
- Rudner, L. (1978). "The Use of Standard Tests with the Hearing Impaired: The problem of Item Bias". *The Volta Review*, January, 1978, 80(1), 31-40.
- Rudner, L. and Convey, J. (1978) "An Evaluation of Select Approaches for Biased Item Identification". In *The Military Testing Association Conference Proceedings*. San Diego: Army Research Institute.
- Meadow, K, et. al. and Rudner, L. (1980). *A Social-Emotional Adjustment Scale for Deaf Children*. Washington, DC: Gallaudet College, Research Institute.
- Rudner, L., Getson, P. and Knight, D. (1980). "Item Bias Detection Techniques", *Journal of Educational Statistics*, 5, 213-233.
- Rudner, L., Getson, P. and Knight, D. (1980). "A Monte-Carlo Comparison of Seven Biased Item Detection Techniques", *Journal of Educational Measurement*, 17, 1-10.
- Rudner, L. (1981). "FILEX - A TRS-80 Communication Package for File Exchange", *Encyclopedia of Computer Programs*, Peterborough, NH: Wayne Green Publishing.
- Rudner, L., Getson, P. & Dirst, R. (1981) "Interpreter Competence", *Registry of Interpreters for the Deaf Journal*, 1, 1-15.
- Rudner, L. (1983, editor). *Testing in Our Schools*, Washington, DC: National Institute of Education.
- Rudner, L. (1983). "A Closer Look at Latent Trait Parameter Invariance", *Educational and Psychological Measurement*.
- Rudner, L. (1983). "Individual Assessment Accuracy", *Journal of Educational Measurement*.
- Rudner, L. (1984). *NAEPIRS: The National Assessment of Educational Progress Information Retrieval System*. Washington, DC: National Institute of Education.
- Rudner, L. (1985). "Five versus Three Evaluators: A cost benefit analysis of Interpreter competency scaling" *Registry of Interpreters for the Deaf Journal*.
- Rudner, L. (1985). "Utilities", *PC Monitor*, 12, 63-68.
- Elliott, E., Hall, R, Sweet, D & Rudner, L, & others (1985) *Educational Indicators*, U.S. Department of Education, January.
- Rudner, L., M. Treacy & T. Song (1986) *Director's Report to Congress on the National Assessment of Educational Progress*, January.
- Landsman, L., Rudner, L, & others (1986) Teacher views toward educational reform, *Instructor Magazine*, April.
- Rudner, L. (1987). "MS-DOS limits hard disk storage capacity," *Government Computer News*, March 27.

- Rudner, L. and Heines, E. (1987). "Examine test scores", *School Administrator*, September.
- Rudner, L. (1987, editor) *What's Happening in Teacher Testing: An analysis of state teacher testing practices*. Washington, DC: U.S. Department of Education.
- Rudner, L. (1987) "Questions and Answers concerning teacher tests", Content of Teacher Tests", Supply and Demand and Teacher Testing", "Results of a 50 state survey on teacher testing", in above.
- Rudner, L. (1987). "Testing to Improve Teacher Quality" *Capital Ideas*, National Governors Association, September.
- Rudner, L. (1987). *The Ability to Benefit Policy of the National Accrediting Commission for Cosmetology Arts and Sciences* Washington, DC: National Accrediting Commission for Cosmetology Arts and Sciences, October.
- Rudner, L. (1988). "Teacher Testing -- An Update" *Educational Measurement: Issues and Practice*, Spring.
- Landsman, L. & others (1988) Teacher views on classroom control, *Instructor Magazine*, March.
- Rudner, L., M. Pollack & P. Getson (1987). "ICUES: The Intensive Care Unit Evaluation System", In *Proceedings of the Symposium on Computer Applications in Medical Care*, Washington, DC: George Washington University Press, November.
- Rudner, L. (1987). "Who should assess teachers?" (opinion-editorial) *Education Week*, November 25, 1987.
- Eissenberg, Thomas E. & Rudner, Lawrence M. (1988). Explaining test results to parents. *Practical Assessment, Research & Evaluation*, 1(1).
- Rudner, L. (1988). *Testing in proprietary schools: A resource book* Chevy Chase, MD: LMP Associates, 1988.
- Rudner, L. & E. Baker "Can teacher testing programs meet their goals?" In L.J. Fyans (ed) *Testing for Certification and Accreditation* Chicago: J.A.I. Press, 1989.
- Rudner, L. (1989). Admitting applicants to your teacher education program, In Ayers, J. and M.F. Berney (eds) *A Practical Guide to Teacher Education Evaluation*, Boston: Kluwer, 1989.
- Eissenberg, T. & L. Rudner (1988). "Teacher Testing - the 1988 report" *Journal of Teacher Education*, July-August, 1988.
- Rudner, L. , B. Plake & J. Conoley (1990). *Understanding District Test Results*, Washington, DC: ERIC Clearinghouse on Tests, Measurement, and Evaluation, 1990.
- Rudner, L. (1989). "Pre-employment Testing" in *Investing in People: a strategy to address America's Workforce crisis* Washington, DC: U.S. Department of Labor Commission on Workforce Quality and Labor Market Efficiency, September, 1989.
- Rudner, L. (1989). Computer Adaptive Testing. *Educational Measurement: Issues and Practice*, Spring, 1989.
- Rudner, L., & T. Eissenberg (1989) "Standards on Teacher Certification Tests" *Journal of Personnel Evaluation in Education*.
- Rudner, L. (1990). "Computer Testing: Research Needs Based on Practice" *Educational Measurement: Issues and Practice*, 1990, 2, 19-21.
- Bangert-Drowns, Robert L. & Rudner, L. (1991). Meta-analysis in educational research. *Practical Assessment, Research & Evaluation*, 2(8).
- Rudner, L. (1992). "A Review of the Transit Operator's Selection Inventory", *11th Mental Measurements Yearbook*, Lincoln, NE: Buros Institute of Mental Measurements, 1992.
- Rudner, L. (1992). "A Review of the Allied Health Occupations Aptitude Examination", *11th Mental Measurements Yearbook*, Lincoln, NE: Buros Institute of Mental Measurements, 1992.
- Rudner, L., R. Stonehill, R. Childs, & J. Dupree (1991) "Educational Measurement Productivity" *Educational Measurement: Issues and Practice*, April, 10, 1, 34.

- Rudner, L., L. Wise & R. Stonehill (1991) "ERIC/TM: A growing resource" *Applied Measurement in Education*, 4, 1, 1-10.
- Rudner, L. (1992). Reducing errors due to the use of judges. *Practical Assessment, Research & Evaluation*, 3(3).
- Chia, W.J., Rudner, L. & others (1992) *A Guide to Test Validation*, Washington, DC: ERIC Clearinghouse on Tests, Measurement and Evaluation.
- Rudner, L. (1992). "Pre-employment testing and employee productivity" *Public Personnel Management*, Summer 1992, 21, 2, 133-150.
- Rudner, L. & Shafer, M.M. (1992). Resampling: a marriage of computers and statistics. *Practical Assessment, Research & Evaluation*, 3(5).
- Rudner, L. & Farris, M. P. (1992). A precedent for test validation. *Practical Assessment, Research & Evaluation*, 3(6).
- Bracey, G. & Rudner, L. (1992). Person-fit statistics: high potential and many unanswered questions. *Practical Assessment, Research & Evaluation*, 3(7).
- Bagin, C. and L. Rudner (1994). "What should I know about school testing" Rockville, MD. Aspen Institute (a brochure for parents with a planned initial printing of 75,000). 1994
- Rudner, L., Bracey, G., Skaggs, G. and P. Getson (1995). *The use of person-fit statistics in analyzing and reporting NAEP results*. Washington: U.S. Government Printing Office, Report for the National Center for educational Statistics, January.
- Rudner, L. (1994). Questions to ask when evaluating tests. *Practical Assessment, Research & Evaluation*, 4(2). Available online: <http://PAREonline.net/getvn.asp?v=4&n=2> . As of 3/27/09, this paper has been viewed 65,000 times since 11/13/99. This paper was also reprinted by the Buros Institute.
- Doolittle, P., Rudner, L., & M. Halpern (1995). The ERIC Test Locator. *Educational Researcher*, Winter, 1995
- Rudner, L., Bracey, G. & G. Skaggs (1996). An application of a person fit statistic with a high quality examination, *Applied Measurement in Education*, Winter.
- Drake, L, Rudner, L., & J. Pierce (1996). Internet resources for assessment and evaluation. *Educational Measurement: Issues and Practice*.
- Syrett, Kristen L. & Rudner, L. (1996). Authorship ethics. *Practical Assessment, Research & Evaluation*, 5(1).
- Rudner, L. (1998). Item banking. *Practical Assessment, Research & Evaluation*, 6(4).
- Rudner, L. (1999). "Scholastic Achievement and Demographic Characteristics of Home School Students in 1998" *Educational Policy Analysis Archives*, v7, n8, 1999 (<http://epaa.asu.edu/epaa/v7n8/> 26,000 hits in one year; popular version at <http://hslda.org> and in *Home School Court Report* circ 100,000).
- Rudner, L. & W.D. Schafer (1999). How to write a scholarly research report. *Practical Assessment, Research & Evaluation*, 6(13). Available online: <http://PAREonline.net/getvn.asp?v=6&n=13> . As of 3/27/09, viewed 134,000 times.
- Hertzberg, S. & L. Rudner (1999). "Can Researchers Research the ERIC Database", *Educational Policy Analysis Archives*, v7, n25, 1999
- Rudner, L. (2000). Who is going to mine digital library resources? And how? *D-Lib Magazine*, 6(5).
- Rudner, L.M. (2000). Can ERIC survive a laissez-faire fiscal policy? *BottomLine* 31(3), 127-134.
- Rudner, L. (2001). Computing the expected proportions of misclassified examinees. *Practical Assessment, Research & Evaluation*, 7(14).

- Rudner, L. & P. Gagne (2001). An overview of three approaches to scoring written essays by computer. *Practical Assessment, Research & Evaluation*, 7(26).
- Rudner, L. J. Burke, & L. Rudner (2001). Is Something Happening to Measurement Scholarship? *NCME Newsletter*, 6(2), 1-2.
- Rudner, L. (2001). Informed Test Component Weighting. *Educational Measurement: Issues and Practice*, 20(1), 16-20.
- Rudner, L., Gellmann, J., & M. Miller-Whitehead (2002). Who Is Reading On-line Education Journals? Why? And What Are They Reading? *D-Lib Magazine* 8(12).
- Rudner, L.M. & Liang, T. (2002). Automated essay scoring using Bayes' theorem. *Journal of Technology, Learning, and Assessment*, 1(2).
- Rudner, L.M. (2002). Measurement Decision Theory. Final report to the National Institute on Student Achievement, Curriculum and Assessment. ERIC ED457164.
- Rudner, L. (2003). How Many People Search the ERIC Database Each Day? *D-Lib Magazine* 9(4).
- Rudner, L. M. & Boston, C. (2003). Data warehousing: Beyond disaggregation. *Educational Leadership*, 60(5), 62 - 65.
- Rudner, L.M. (2003) The Classification Accuracy of measurement Decision Theory. Paper presented at the annual meeting of the National Council on Measurement in Education, Chicago, April 23-25, 2003.
- Rudner, L.M. (2003). An Examination of Decision-Theory Adaptive Testing Procedures. Paper presented at the annual meeting of the American Educational Research Association New Orleans, LA April 1-5, 2002.
- Rudner, L.M. (2005) Examinees Retaking the Graduate Management Admission Test®. GMAC® Research Report: RR-05-01.
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MAJOR SOFTWARE AND INTERACTIVE WEBSITES

Software

<u>Name</u>	<u>Language</u>	<u>Year</u>	<u>Client</u>	<u>Description / Comment</u>
FILE-EX	Assembler	1981	Wayne Green Publications	Modem software for the TRS-80
NAEPIRS	Compiled Basic	1984	US Dept of Education	Search and retrieve NAEP findings
Punch-IT	Assembler; Compiled Basic	1987	Victor Stanley	Controller for an industrial robot
Go4Log	Compiled Basic	1989	public domain	Software to analyze GOPHER log files
QUERY	Visual basic	1990	LMP Associates	Query the best minds in education - search and retrieve educational briefing papers
Mutual Review	Visual basic	1991	Visual Information Systems	Search and retrieve mutual fund information
Meta-Stat	Pascal	1991	NIH, public domain	Meta analysis statistical package
ICUES	Visual Basic	1993	NIH	Pediatric Intensive Care Unit Evaluation System
BETSY	PB/Win, VB	2001	US Dept of Ed, Public domain	Bayesian Essay Test Scoring sYstem
PARAM3PL	PB/Win	2003	Public domain	IRT parameterization software
BadGuyFind	PB/WIN	2006	GMAC®	Uses the Yahoo API to find sites with copyright infringements
ItemFind	PB/Win, XSL	2005-9	GMAC®	Copyright infringement identification and documentation. QTI Compliant. Patented
MDTGenerate	PB/Win	2003-9	Public domain	Generate test question data using decision theory
MDTCalibrate	PB/Win	2003-9	Public domain	Calibrate test question data using decision theory
MDTScore	PB/Win	2003-9	Public domain	Score test question data using decision theory
Feed2Cube	SPSS Script	2005	GMAC®	Converts from vender data feed to create internal database
QTIViewer	PB/Win, XSL	2006-9	GMAC®	View test items in QTI/XML format
QTIExtract	PB/Win	2006-9	GMAC®	Extract QTI compliant items in WordML, text, or QTI format.
QTI2HTML	PB/Win, XSL	2006-9	GMAC®	Extract QTI compliant items in HTML formats.

Website programming

<u>Language</u>	<u>Year</u>	<u>Client</u>	<u>Description / Comment</u>
ASP, VBScript	1997, 2003	SearchERIC.org	Internet's first thesaurus driven search engine
ASP, VBScript, JavaScript	1998	ericae.net	Full text library, survey system, Book store, news feed. This site was ranked 10,512 by Alexia in 2003
ASP	1999	edres.org/scripts/cat	Interactive on-line computer adaptive testing demo and tutorial
ASP.NET	1999, 2004	PAREonline.net	Journal manuscript management & presentation system
ASP, VBScript	2000	European documents.com	On-line Document Retrieval, admin system

Website programming

<u>Language</u>	<u>Year</u>	<u>Client</u>	<u>Description / Comment</u>
JavaScript	2003-9	edres.org/mdt	Applet for decision theory
ASP	2008	GMAC	Prototype for GMATFocus® using adaptive testing and decision theory
ASP	2008	GMAC	Test driver for an experimental new test product

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