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Certified Professional Ergonomist

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Education

Ph.D.--University of Michigan, Ann Arbor, Michigan--1978.

Doctor of Philosophy in psychology (cognitive, experimental) now Division of Cognitive Science. Emphasis upon complex cognition, computer modeling, automata theory, computer science, modal logic, statistics, and methodology.

B.A.--Macalester College, St. Paul, Minnesota--1971.

Bachelor of Arts, *summa cum laude* with special departmental honors in psychology. Emphasis upon physiological psychology, mathematics, statistics, computer simulation, and methodology. Phi Beta Kappa in 1970.

Scholarships and Fellowships

1967-71—National Presbyterian Scholarship

1972-76—National Institutes of Mental Health Trainee

Professional Organizations (Full Membership)

1979—Human Factors and Ergonomics Society.

1983—American Association for Artificial Intelligence.

1983—Association for Computing Machinery (ACM) and SIGCHI.

1993—Board Certified Professional Ergonomist, Certificate Number 496

1996—Metropolitan Atlanta Phi Beta Kappa Alumni Association.

Professional Experience

1995--present Southern Polytechnic State University, Marietta, GA.

*Professor (Since 2001)- School of Computing and Software Engineering--*Teach graduate and undergraduate courses in research methods, issues in computer science, human factors, computer graphics, objects, and visual programming. (Part-time faculty, 1993-1994.) Develop curriculum for user-centered design, software engineering, C++ programming language, web development, program and instructional assessment and evaluation, international computing and adult continuing education. Obtain funding and support to perform research in human-computer interaction, the use of computers to support teamwork, and application design, development, testing, instructional evaluation, and knowledge mining. Established university research office (1999-2001) and industry liaison and sponsorship program for the Computer Science Department (1997-1998) and local industry. Initiate and evaluate incorporation of instructional technology and distance learning into teaching and learning. Assess pedagogical changes for their value in improving teaching and learning.

1981--1995 IBM Corporation, Atlanta, GA.

Senior Human Factors Engineer/Scientist--Researched, developed, and tested human factors aspects of IBM software products and documentation, specifically applications running cooperatively on a workstation and a host. Provided consulting services to external customers. Developed documentation and online information for IBM internal and customer applications. Performed ergonomic analysis and hardware product evaluations to advise management on purchase decisions. Led the design and development across multiple sites and countries of a common, integrated user interface of all PWS-based for use within IBM and phone-based systems. Led IBM contributions to professional organizations.

1979-81--Stevens Institute of Technology, Hoboken, NJ.

Assistant Professor of Management Science--Taught applied experimental psychology and human factors. Chaired and served on doctoral dissertation committees. Developed computer-based human factors course (NSF funded project).

1976-79--University of Michigan—Highway Safety Research Institute, Ann Arbor, MI.

Assistant Research Scientist--Researched human factors of driver nighttime performance, motorcycle conspicuity, and sign legibility. (National Highway Traffic Safety Administration--NHTSA--funded projects.)

1972-76--University of Michigan, Ann Arbor, MI.

Senior Graduate Student Research/Teaching Assistant--Coordinated twelve teaching assistants and 200 students in the elementary psychology laboratory course, and taught the course. Researched and developed elements of the EXPER-SIM scheme for computer assisted instruction (Exxon Education Foundation funded project).

1971-72--Inter-Study, Minneapolis, MN.

Research Analyst--Collected and coded data on welfare programs to improve employability; wrote and ran computer programs to analyze the data (Department of Labor funded project).

1970-71--North Star Research and Development, Minneapolis, MN.

Research Associate--Coordinated a nationwide network of interviewers for research project on work incentive programs in rural areas (Department of Labor funded project).

1968-71--Macalester College, St. Paul, MN.

Student Assistant--Wrote computer programs for statistical analysis and computer assisted instruction via simulation. Researched psycho-physiological aspects of sleep.

Additional Part-time and Adjunct Faculty Positions

1987-88--Rensselaer Polytechnic Institute, Troy, NY.

Adjunct Assistant Professor of Psychology--Taught two graduate seminars in ergonomics.

1987--State University of New York, New Paltz, NY.

Adjunct Lecturer in Psychology--Taught graduate level course in human factors.

Professional Accomplishments

Co-founder of the Georgia Digital Academy (GDA) through an ongoing grant from the Georgia Technology Authority to SPSU ('01-present). Wrote the winning technical proposal in a national competition to develop and implement the GDA as the catalyst for state entities to come together to address their common needs in the area of digital government. Served as the lead facilitator and project manager for the first two GDA sessions covering document management and Microsoft Active Directory.

Co-developer of courses and curriculum for B.S. and M.S. degrees in Information Technology to be delivered both in the classroom and exclusively online via WebCT.

Co-founder of a research scholarship community at SPSU ('99-01). Facilitated the development of many proposals for extramural funding, some of which were successfully funded. Fostered the beginning of a cultural change towards funded research and scholarship on the campus. Brought together the campus research community with the local industry research and development community.

Developed a new framework to integrate vertically education and training for information technology. Led the development of the Southern Polytechnic proposal to the University System of Georgia. The proposal was approved and funded at \$210,000 for the first year.

Completed guest professorships of Wirtschaft Informatik at the Fachhochschule Anhalt, Bernburg and Köthen, Germany ('98, '99, '01). Taught seminars in international video conferencing, international teamwork and development, web technology, and knowledge mining in the International Business Program and artificial intelligence in the Computer Science Department. Consulted with local education and business leaders.

Developed and taught six new courses in computing for new topics including web development, C++ programming, user-centered design, and object-oriented software engineering. These courses or modules from them have been taught at all levels from adult continuing education through graduate degrees. Some relied on distance learning. End-of-course evaluations show all are highly successful and effective.

Conceived, proposed, and directed a Southern Polytechnic research project sponsored by MCI. The project has been renewed for three straight years. It investigates electronic commerce on the web and knowledge mining.

Developed and initiated web-based survey methodology that has been used to teach research methodology, complete research investigations, evaluate and assess programs and policies, and hold electronic meetings via the web.

Directed a videoconference with Fachhochschule Anhalt in Germany that demonstrated the feasibility of international distance learning.

Initiated Industry Liaison Program for the Computer Science Department at Southern Polytechnic.

Over two-dozen local industries are active participants.

Designed convenience, power, and satisfaction into human-computer interaction throughout my career. Accomplishments include inventing the thumb control used on many notebook computers, establishing ergonomic guidelines for using the half-billion tone phones as worldwide, convenient access to information services, simplifying computer documentation, inventing an improved interactive multimedia menu board for fast-food drive-thrus, and developing tools and methods to map between intuitive user objects and the computer objects used by programmers.

Led the design of the user interface for the first generation of GUI applications for IBM.
Developed design standards, approaches, criteria, and user-interface objects that were widely accepted and are widely used throughout IBM.

Chaired the IBM Internal Symposium for Human Factors and Ergonomics for 3 years. During my tenure, we expanded our scope to include programs for manufacturing ergonomics, held three meetings with international attendance, developed the first ever tutorial program for the IBM ergonomics community, and held our first ever corporate broadcast on the IBM television network.

Established a learning center for IBM/ISSC Atlanta to provide an environment for continuous skill development and improvement without spending extra funds for education.

Managed multiple government (e.g., NHTSA) and commercially sponsored research and development projects for 5 years. Managed personnel and resources, and had financial responsibility for hardware, software, and policy program development projects at the University of Michigan and Stevens Institute of Technology.

Assessed the performance, quality, and usability of customer service processes in the transportation and insurance industries. Recommendations for improvements adopted by clients in the areas of implementing business process reengineering, task flow, screen flow, navigation, development process changes, and call scripting.

Developed and implemented a methodology to engineer the use of technology in the business processes of an elementary school. The technique identifies needs, sets priorities, and through team building, facilitates the cultural changes necessary to integrate the use of computers and other instructional technology into the curriculum.

Established a usability function within the Atlanta ISSC development organization. Led the development and implementation of the design team approach to constructing the user interface for corporate-wide PWS applications. Developed a library and repository of re-usable resources. Overall, we have achieved a 95% satisfaction rating by development.

Co-Led 20-member cross-site team to develop and implement a standard user interface design process and style. Traveled from site-to-site to achieve consensus so that the program is in place across the company and the process is now used at all ISSC sites. Led a team on an urgent, short-duration project covering large-processor installation. Quality ratings increased and errors and cycle-time were reduced by an estimated 75%.

Established a research and development effort within IBM for making tone phones effective computer workstations. Authored and published guidelines used internally, by customers, and by industry and governmental standards committees, resulting in convenient information services being available through the half-billion tone phones worldwide.

Designed new document styles for large computer systems operation and installation leading to improved operator and installer efficiency, and increased customer satisfaction.

Analyzed and modeled computer control and operations in the large, complex systems environment. Demonstrated the necessity to re-engineer and automate computer operations. Provided the scientific base for re-engineering the computer operator's job, and the technical base for developing a new line of graphic system control and management products.

Surveyed and analyzed the tasks and information requirements of non-programmers for an interactive debug environment. Concluded (in 1982) that a full-screen, integrated development environment was necessary to support the cognitive tasks of program development. Such environments have recently become very popular on all computers.

Analyzed survey data covering the value of various information sources in solving problems of computer use. Discovered the significant role of cognitive state in that first-time learners have different information needs than experienced users who just need to refresh their memories.

Researched the value and requirements for natural language and voice-activated user interfaces. Discovered: a) That an EPSS or an intelligent assistant might be preferred and more effective if it uses a limited, more formal dialect of natural language. b) Designers still need to design a structured user interface even though it operates based on input derived from voice activation or reliable speech recognition.

Co-chaired the 1992 Annual Meeting of the Human Factors and Ergonomics Society, where ergonomists from around the world met and found something in common with colleagues, regardless of whether they practiced in the military, commercial, or educational/professional sectors.

Advocated and practiced continuous learning by teaching formal courses for colleague employees, managers, and executives in the areas of cognitive modeling, computer programming, computer simulation, design of experiments, research methods, information design and development, information technology, natural language user interfaces, online assistance and help, personal effectiveness, phone-based systems, quality processes and engineering, research methods, statistics and statistical quality control, teamwork, telephony, usability and human-factors engineering, user-interface design and voice interfaces. Served on the faculty of numerous universities, throughout my career and while at IBM. Designed, developed, and taught numerous continuing education courses for professional societies.

Pioneered the research, development, programming, and use of computer simulations for undergraduate science and engineering education. Designed, programmed, and used computer simulations to teach science and engineering effectively for over 25 years. Led groups of teachers and professors to do so also.

Consulting Experience

1995-Present—Global Ergonomics Management, Inc.

Provide continuing education instruction in web development, BASIC, C and C++ programming, office ergonomics, and general computer use at local universities, businesses, and homes.

1999-2000--Aelera Corporation

Consult on user interface design and usability.

1995-2000—Technical Exchange Company

Develop and provide continuing education course on user interface design.

1995—IBM (as customer)

Design and assess employee development and skills database system.

1991-94—IBM (as employer)

Consult on the human factors and usability of customer application software. Service areas include application assessment, task analysis, user-centered product design, user interface design, development, and walkthrough, and application usability testing.

Clients have included CSX, Blue Cross, and Primerica.

1972-1995--EXPER-SIM

Consult on the EXPER-SIM scheme of computer based education. Clients have included Southern Illinois University and the University of Florida.

1980-81--Apple Education Foundation, Cupertino, CA.

Developed Pascal's EXPER-SIM, a package for programming instructional computer simulation on personal computers.

1980-81--Traffic and Street Sign Co., West Orange, NJ.

Analyzed driver decision making as signal turns from green to amber to red.

1979-81--University of Michigan--TRI, Ann Arbor, MI.

Presented research findings to government and professional societies. Assisted in developing a proprietary computer simulation.

1973-79--Exxon Education Foundation, New York, NY.

Consulted and presented to national workshops on instructional computer simulation.

1976--Alfred Publishing Company, New York, NY.

Evaluated potential psychology texts.

1975--Denison University, Granville, OH.

Consulted on evaluating instructional computer simulations for a Lilly Foundation project.

1972-73--Macalester College, St. Paul, MN.

Consulted on developing and evaluating instructional computer simulations for NSF project.

Bibliography and Presentations

2002

Changing the Culture of Document Management in Georgia Government. Final Report of the Georgia Digital Academy Pilot Session on Document Management, available at www.gagta.com June 24, 2002. Editor with Doris Konneh.

Teaching and Learning Ubiquitous CHI (UCHI) Design: Suggestions from the Bauhaus Model. *Extended Abstracts to the CHI'2002 Conference*. April, 2002, Minneapolis, MN, pages 660-661. With William Carpenter.

Teaching Professionalism by Applying What Computing Students Do Best: Develop Code. Presentation to the Lilly South Conference. February 2002, Athens, GA.

Teaching When Last Term's Class Material Just Won't Cut IT Anymore. Presentation to the Georgia Conference on Teaching and Learning. February 2002, Kennesaw, GA. With Frank Tsui.

2001

Design Smarts. Invited presentation to the Georgia Tech Engineering Psychology Forum. September 2001.

The Consumer as Systems Integrator--A Case Study. Presentation to the *Society for Work Science Annual Conference 2001*.

Risk Assessment in the Business Acquisition Process--A Case Study. *Proceedings of InterSymp 2001 Preconference on Advances in Computer-Based and Web-Based Collaborative Systems*, pages 99-103. With Lawrence S. Aft and John Heathcock.

Degrees on Line--A Risk Assessment. *Proceedings of InterSymp 2001 Preconference on Advances in Computer-Based and Web-Based Collaborative Systems*, pages 105-112. With Lawrence S. Aft.

Internet-Nutzung im Einkauf (The Utilization of the Internet in Purchasing) Beiträge zur Wissenschaft, Technologie und Gestaltung (Contributions to Science Technology and Design Technical Report) Number 55/2001. Hochschule Anhalt--Anhalt University of Applied Sciences, Bernburg, Germany. 21 pages. (Root manuscript for journal article submissions) With Rudolf Large, Sid Davis, and Zoltán Kovács.

2000

Report on the CSEET '99 Workshop: Establishing a Distance Education Program. *Computer Science Education* (2000) Vol 10 No1 pages 57-74. With Helen Edwards, J. Barrie Thompson, David Arnow, and Dave Oliver.

Learning and Instructional Issues in Software Engineering. *Workshop proceedings of the International Conference on Software Engineering*. June 2000, Limerick, Ireland. With Mike Murphy.

Global Logic Design: A Course in Digital Design via On-Line Distance Learning. *Proceedings of the International Conference on Systems Engineering*. September 2000, Coventry, England. With Gerd Woestenkuehler and Saun Shewanown.

1999

Research Methods in Computing. Simon and Schuster Custom Publishing. With Bob Harbort.

Software engineering practicum projects: Opportunities and pitfalls. *Proceedings of the World Multiconference on Systemics, Cybernetics, and Informatics*. August 1999, Orlando, FL, pages 451-453.

Using the web for learning survey methodology. Presentation to the 1999 University System of Georgia Conference on Information Technology, Rock Eagle, GA, October 1999.

Setting up Your Own Web Servers. A Short Course for the University System of Georgia. 1999. With Ken McGill.

CGI Scripting in Perl. A Continuing Education Course for the Southern Polytechnic Extended University. 1999.

Designing Effective User Interfaces, 2nd Edition. A Short Course for Technology Exchange Corporation. With Barbara Thomas.

A Broader View for Computing Education. *Proceedings of the 29th ASEE/IEEE Frontiers in Education Conference*. November 1999, San Juan, PR. With Mike Murphy and Bob Harbort.

Establishing a Distance Education Program: Pedagogical Preparation. *Proceedings of the 12th Conference on Software Engineering Education and Training*. March 1999, New Orleans, LA.

1998

A challenge for computer science educators. December 1998 *SIGSCE Bulletin*. With Mike Murphy.

So, you want to go on an international teaching assignment... *Reaching through Teaching* Fall 1998, Vol. 12, No. 1, pages 17-19, Kennesaw State University.

Fundamentals of usability evaluation. Presentation to the Society for Technical Communications of Atlanta, Usability SIG, November 1998, Atlanta, GA.

Research Methods in Computer Science and Information Technology. Simon and Schuster Custom Publishing. With Bob Harbort.

Electronic commerce and instructional technology. (English) Presentation to the Informatik Fachbereich of the Fachhochschule Harz, Wernegerode, Germany. June 1998.

Study abroad at Southern Polytechnic: The possibilities and opportunities. (German) Presentation to the Fachhochschule Merseburg, Merseburg, Germany. June 1998.

A workshop in cgi scripting. Presentation to the Joint Informatik Retreat of the Fachhochschule Anhalt and Fachhochschule Muenster. May 1998, Reine, Germany.

1997

Reengineering ergonomics for home-based work. Presentation to the Society for Work Science Reengineering Conference, October 1997, Marietta, GA.

Ethics of the Before and the After. Presented to Interface 97, October 1997, Marietta, GA

Are computers and the web changing the way we think? Presented to WaltsDay at Macalester College, September 1997, St. Paul, MN.

On the nature of objects. Presentation to the Atlanta Object-Oriented Programming Users Group, January 1997.

1996

Phi Beta Kappa Alumni Association of Atlanta—Interest Survey Report and Presentation.

Templates for Maximizing Web Value of FAQs at MCI. Technical Report SPSU.CS_MCI.1996.01, 30 September 1996.

Templates for Maximizing Web Value of Online Policies and Procedures at MCI. Technical Report SPSU.CS_MCI.1996.02, 30 September 1996.

Templates for Maximizing Web Value of Organization Charts at MCI. Technical Report SPSU.CS_MCI.1996.03, 30 September 1996.

Templates for Maximizing Web Value of Search Engines through Meta-Tags at MCI. Technical Report SPSU.CS_MCI.1996.04, 1 December 1996.

Using HTML for an Online Survey of Risk Perception: An Experience Study. Presented to the annual meeting of the ASME, November 1996, Atlanta, GA.

Electronic Mail: Examining the Human Capabilities and Limits. Presented to Interface 96, October 1996, Marietta, GA

1995

Personal Leadership. Workshop presentation delivered to the Southern College of Technology.

The wide world of the world-wide web. Workshop presentation delivered to Fulton County School Teachers.

Two proprietary technical reports.

1994

Advanced User's Guide for the IBM Data Access System.

User's Guide and Quick Reference for the IBM Data Access System.

Three proprietary technical reports.

1993

Report on the Mountain Park Elementary School Technology Focus Groups.

Proceedings of the 1993 IBM Human-Computer Interaction Special Interest Group. With R. Cordes.

Getting Started in Usability. Presentation to the Atlanta SIGCHI, January 1993, Atlanta. With L. Holloway.

Five proprietary technical reports.

1992

36th Annual Meeting: A Successful Celebration of Innovative Interactions. *Human Factors Society Bulletin*, December 1992. With D. Folds.

Putting Usability into Application Development. Presentation to the Atlanta SIGCHI, December 1992, Atlanta. With L. Holloway, G. Fornek, D. Garvey, and G. Wainscott.

Putting Usability into Your Applications. Presentation to GUIDE, November 1992, Atlanta. With L. Holloway, M. Engel, G. Epps, G. Fornek, and G. Wainscott.

Technical Vitality: TV NOT for Couch Potatoes. Presentation to GUIDE, November 1992, Atlanta. With Y. Stechishin.

Putting Usability into Your Application Development. Presentation to SHARE, August 1992, Atlanta. With L. Holloway, R. Dumon, G. Fornek, J. Johnson, and L. Waggoner.

Technical Vitality: TV NOT for Couch Potatoes. Presentation to SHARE, August 1992, Atlanta. With Y. Stechishin.

Phone-based user interfaces. Presentation to SHARE, March 1992, Anaheim.

Building a Usability Function in Your Organization. Presentation to SHARE, March 1992, Anaheim. With L. Holloway.

Eight proprietary technical reports.

1991

Phone-based user interfaces. Presentation to GUIDE, November 1991, New Orleans.

Building a Usability Function in Your Organization. Presentation to GUIDE, November 1991, New Orleans. With L. Holloway.

Natural Language User Interfaces. Presentation given during the IBM Usability Directions Update.

Screen-based, phone-based and voice-activated user interfaces. A CHI '91 Short Talk with abstract appearing in the *SIGCHI Bulletin*. With M.M. Jacobson and C. Chuongvan.

Designing phone-based user interfaces. Tutorial given at IBM User Interface Symposium, Thornwood, NY.

The Feasibility of Natural Language User Interfaces. Presentation given at IBM User Interface Symposium, Thornwood, NY.

Designing industrial-strength user interfaces. SIG established and lead at CHI '91 in New Orleans, LA.

Two proprietary technical reports.

1990

The perceived effectiveness of computer information sources: A field study. *SIGCHI Bulletin*, April 1990. With R.E. Granda and J.M. Winters.

Designing phone-based user interfaces. Tutorial given at CHI '90 in Seattle, WA.

Phone-based user interfaces. SIG established and lead at CHI '90 in Seattle, WA.

Four proprietary technical reports.

1989

Shaping user input: a strategy for natural language dialogue design. *Interacting with computers*. November 1989. With M.L. Ringle.

Designing phone-based interfaces. Workshop given at the Annual Meeting of the Human Factors Society, Denver, Colorado, 1989.

The design of phone-based interfaces for consumers. *Proceedings of CHI '89*, Austin, TX.

The task variant method for information development. Workshop given at the International Technical Communications Conference, Chicago, Illinois, 1989. With M.C. Moment.

A usability test of the Self-Help phone interface. IBM technical report.

Six proprietary technical reports.

1988

Monitoring and classifying messages. IBM technical report with R.E. Granda.

Question answering dialogue over computer terminals. Presented to the Mid-Hudson Chapter, Society for Technical Communications.

The perceived effectiveness of computer information sources: A field study. IBM technical report OO.3495 with R.E. Granda.

Intelligent interfaces. Presented to Dutchess Community College, Career Day.

Fifteen proprietary technical reports.

1987

Vassar-IBM dialogue interface project. Vassar College technical report with M.D. Ringle and K.M. Elsesser.

The human factors of motorcycle conspicuity and headlighting design. Presented to the Hudson Valley Chapter, Human Factors Society.

Five proprietary technical reports.

1986

Intelligent user interfaces. Presented to Marist College, Computer Horizons Day.

Two proprietary technical reports.

1985

The design of computer-based instruction: Techniques from function allocation. Presented to the annual meeting of the Human Factors Society.

Two proprietary technical reports.

1984

Message-based screen interfaces: The effects of presentation rates and task complexity on operator performance. Presented to the annual meeting of the Human Factors Society with R. E. Granda.

Computer simulation in Pascal. Presented to the Vassar Pascal Institute, Vassar College.

One proprietary technical report.

1983

Three results from improving an undergraduate course in human factors using computers. Presented to the annual meeting of the Human Factors Society, with M.C. Detweiler, M.P. Jurkat, E.L.A. Hamilton, and L.S. Gold.

A field study of the human factors of debugging FORTRAN programs. Presented to SHARE 61, with V. Sutton.

Two proprietary technical reports.

1982

Final report on the development of a computer based human factors laboratory course for undergraduates. Stevens Institute of Technology, with M.C. Detweiler, M.P. Jurkat, E.L.A. Hamilton, and L.S. Gold.

One proprietary technical report.

1981

Programmer set and degree of language structure in programming performance. Presented to the annual meeting of the Human Factors Society.

A computer based undergraduate course in human factors. Presented to the annual meeting of the Human Factors Society.

The effect of improvements in motorcycle/motorcyclist conspicuity on driver behavior. *Human Factors*, Vol 23(2), 237-248, with P.L. Olson, and M. Sivak.

Evaluation of the feasibility of a single beam headlighting system. University of Michigan--TRI, with P.L. Olson, M. Sivak, W. Burgess, and M. Flannagan.

Human factors research into nighttime sign legibility. University of Michigan--TRI, with P.L. Olson, M. Sivak, and J. Egan.

1980

General risk-management strategies to reduce unsafe driving acts. University of Michigan--TRI, with R.R. Bennett, R.K. Jones, K.B. Joscelyn, S.M. Kornfield, M.E. Marks, and R.S. McCarger.

Motorcycle conspicuity. Presented to the annual meeting of the Society of Automotive Engineers, with P.L. Olson and M. Sivak.

Enhancing motorcycle and moped conspicuity. Presented to the first International Motorcycle Safety Conference, with P.L. Olson and M. Sivak.

Two proprietary technical reports.

1979

Police personnel levels and the incidence of crime. Presented to the annual meeting of the American Society of Criminology, with R.R. Bennett and S. Baxter.

TTT: Computer facilitation of learning process modeling. Presented to the annual meeting of the American Psychological Association.

Development and testing of techniques of increasing the conspicuity of motorcycles and motorcycle drivers. University of Michigan TRI technical report with P.L. Olson and M. Sivak.

Characteristics of set in sequence learning. University of Michigan doctoral dissertation.

EXPER-SIM on the Michigan Experiment Simulation Supervisor. XIP Publications, with D.B. Main.

1975

The EXPER-SIM pedagogy: Research methodology instruction through inference of models. Presented to the annual meeting of the American Psychological Association, with D.B. Main.

1974

Casual criticism or active arguments. Presented to the fifth conference on the use of computer in the undergraduate curricula, with D.B. Main and R.J. Kaplan.

1971

PAVCO: A computer program for simulating classical eyelid conditioning experiments. Presented to the annual meeting of the American Psychological Association, with W.D. Mink.

Instructional Computer Simulations

1986

BRAKE: Driver braking behavior.

1985

IDEAL: The ideal observer model of signal detection.

1984

STAIRS: Auditory acuity through the staircase method.

1982

PROG: Mastering concepts for simple computer programming.

1981

Pascal's EXPER-SIM: A package for developing instructional computer simulations on a personal computer.

DIALS: Visual acuity in reading gauges.

1980

KIDS: Grip strength of children.

TRACK: Perceptual-motor tracking performance.

1978

T-CUBED: Cognitive processes in playing tic-tac-toe, with W. Aylesworth.

1974

SCHIZGAME: Concordance studies of the etiology of schizophrenia, with D. Malin.

1973

DOPE: Psychopharmacology experiments, with H. Eichenbaum and T. Villars.

1969

PAVCO: Classical eyelid conditioning experiments.