EDUCATION

B.A., Mathematics, Carnegie-Mellon University, 1975.
M. Ed., Rehabilitation Counseling, University of Pittsburgh, 1978.
Ed. D., Instruction and Learning, University of Pittsburgh, 2001.

Pennsylvania Instructional II Certification, Mathematics, 1980.
Pennsylvania Supervisory I Certification, Mathematics, 1991.

EMPLOYMENT

Coordinator of Instructional Technology
Pittsburgh Public Schools, 1998 - 2000

- Implemented the instructional portion of the school district's three-year technology plan. Managed the design, specification, and installation of school LANs, computer labs, peripherals, and design of the user interface in Windows NT. Oversaw a $12 million budget.
- Designed and implemented a staff development program that created technology teams at 95 district schools. The program provided 75 hours of workshop training including productivity skills, curriculum integration and technical support for over 700 district staff.
- Coordinated the Office of Instructional Technology. This included managing personnel, projects, publications, help desk and budgets.
- Created and maintained a WWW page for instructional technology efforts [http://info.pps.pgh.pa.us/oit].
- Co-wrote and managed three PA Department of Education Link to Learn Grants ($1.8 million). These grants provided funds for school LANs, connectivity and staff development.
- Co-wrote and managed two Pennsylvania Technology Literacy Challenge Grants ($830,000). These grants were used to upgrade technology-based programs and magnets.
- Co-wrote and managed two Heinz Endowment Grants ($860,000). These grants were used to design and implement a staff development program for school technology teams.
- Co-wrote and managed a Buhl Foundation Grant ($165,000). This grant helped to design and implement a process for the school district to evaluate, pilot and implement instructional software.
- Managed the District=s 1998 - 2000 E-rate applications ($8 million).

Project Manager and Principal Investigator
Common Knowledge: Pittsburgh, 1993 - 1998.

- Implemented a National Science Foundation testbed conducting research into Internet use in the Pittsburgh Public Schools (PPS).
- Provided input into the design of the project evaluation.
- Helped the Pittsburgh Supercomputer Center design and implement a scalable and supportable technical infrastructure. This included UNIX server design, the user interface, design of the wide area network and documentation of all systems.
- Managed the PPS portion of the project budget ($3 million).

EMPLOYMENT (CONT.)

- Disseminated project information through numerous publications, presentations and the project's WWW site [http://info.ckp.edu].
- Used a Request for Proposal process to implement the project in 29 schools.
- Designed and implemented the process for institutionalizing the project in the Pittsburgh Public Schools.
- Coordinated the technology program for PPS schools participating in the National Alliance for Restructuring Education.

Mathematics Supervisor
Pittsburgh Public Schools, 1988 - 1993.

- Supervised 105 secondary mathematics teachers at 12 high schools.
- Provided individual guidance on classroom pedagogy.
- Designed and implemented district-wide staff development programs for elementary, middle and high school mathematics teachers.
- Participated in and chaired committees to adopt textbooks, write new curriculums and develop assessment programs for numerous middle and high school mathematics courses including:
  - an inductive Geometry course,
  - a Problem Solving course as a replacement to General Mathematics,
  - the development, adoption and in-service for a comprehensive Elementary Functions course and assessment system that uses the TI-82 graphing calculator throughout the curriculum.
- Acted as an advisor for the *Discovering Geometry* textbook published by Key Curriculum Press (1988).

Mathematics Teacher
Pittsburgh Public Schools, 1979 - 1988.

- Taught General Math, Algebra, Geometry, and Precalculus at both Peabody and Brashear High Schools.
- As a Teacher on Special Assignment in conjunction with Dr. John Anderson of Carnegie Mellon University, implemented intelligent computer tutoring systems (Geometry and Algebra) at Peabody High School.
- Participated in district curriculum development in General Math, Algebra and Elementary Functions.
- Represented Peabody HS on the Computers for Mathematics Teachers project.

Mathematics Teacher
Upper St. Clair Schools, 1975 - 1977.

- Taught Algebra and Geometry.

PROFESSIONAL ACTIVITIES

Editorial Panelist

Member of the editorial board for a National Council of Teachers of Mathematics book, Mathematically Promising Students, 1996 - 1997.

Reviewer

Mathematics Teacher, National Council of Teachers of Mathematics, 1994 - 1999.

Task Force Member

National Council of Supervisors of Mathematics Technology Task Force, 1996 - 1997.

Task Force Member

National Council of Teachers of Mathematics Gifted and Talented Task Force, 1995 - 1996.

Invited Participant

US Department of Education, Office of Technology and Assessment workshop on Education and Technology: Future Visions, 1995.

Task Force Co-Chair.

National Council of Supervisors of Mathematics Networking Task Force, 1993 - 1994.

Teaching Assistant.

Secondary Mathematics Methods and supervision of student teachers, University of Pittsburgh, Dept. of Instruction and Learning, 1992, 2000.

Part Time Lecturer.

NCTM Curriculum and Evaluation and Professional Teaching Standards, University of Pittsburgh, Department of Instruction and Learning, 1992.

Adjunct Lecturer.

Creative Problem Solving in Mathematics, Duquesne University, Department of Mathematics, 1992.

Reviewer.

Middle School Teacher Enhancement Program, National Science Foundation. Washington, D.C., 1988.

Test Developer.

Snowmass, CO, 1992. Developed items for the New Standards Project. Harrisburg, PA, 1988-1989. Developed items for the PA Department of Education TELLS extended skills test.

PROFESSIONAL ACTIVITIES (CONT.)

Inservice and Consulting, 1988 - Present.

Led numerous workshops for teachers (K-12), students, administrators and parents in both the Pittsburgh Public Schools and numerous districts in Western Pennsylvania on subjects including:

- the implementation of the NCTM *Standards*,
- incorporating problem solving into curriculum and daily lessons,
- cooperative learning,
- nearly every mathematics content area contained in the K-12 curriculum,
- appropriate use of technology,
- use of computers and software in the K-12 curriculum,
- acceptable use policies for the Internet,
- use of graphing calculators and
- school reform and models for change.

Invited Presentations

National Council of Teachers of Mathematics Regional Conference, Pittsburgh, PA, 1999. Getting Past the Fear of Technology ... and Change.

Internet Society, Kuala Lumpur, Malaysia, 1997. Plenary Panel. Visions for Fundamental Change in Teaching and Learning.

Internet Society, Kuala Lumpur, Malaysia, 1997. Using Instructional Technology as a Catalyst for School Reform.

National Council of Supervisors of Mathematics Annual Conference, Minneapolis, MN, 1997. Using the Internet to Conquer Your Fear of Technology: Lessons Learned from Common Knowledge: Pittsburgh.

The Carnegie Regional Math/Science Collaborative, Pittsburgh, PA, 1996. Using Instructional Technology as a Cattle Prod for School Reform.

National Council of Supervisors of Mathematics Annual Conference, Boston, MA, 1996. Mathematics and Science Projects Using the Internet.

Math, Science and Technology - Tools for Changing Schools Conference, Chicago, IL, 1995. A Model for Implementing Technology in an Urban School District.

Telecommunications Symposium: Using the Internet. Montgomery County I.U., PA, 1995. School Reform From the Bottom Up: Internet Case Studies.

PROFESSIONAL

Regional Curriculum Conference. Allegheny County Regional Math/Science

ACTIVITIES (CONT.)

Collaborative, 1995. School Reform From the Bottom Up: Internet Case Studies.

National Science Foundation/Department of Education Invitational Conference on Systemic Reform, Washington, D.C., 1995. A Model for Implementing Technology in an Urban School District.

US Department of Education Secretary's Conference on Educational Technology, Washington, D.C., 1995. A Model for Implementing Technology in an Urban School District.

Pennsylvania Council of Teachers of Mathematics Annual Conference, Pittsburgh, PA, 1995. Mathematics and Science Projects Using the Internet.

National Council of Supervisors of Mathematics Annual Conference, Boston, MA, 1995. Mathematics and Science Projects Using the Internet.

The Internet: Exploring Opportunities for Mathematics and Science Teachers, Valley Forge, PA, 1994. Mathematics and Science Projects Using the Internet.

The Internet: Exploring Opportunities for Mathematics and Science Teachers, Valley Forge, PA, 1994. School District Issues Pertaining to Internet Use.

MCWP Winter Meeting, Pittsburgh, PA, 1994. Internet: Portal To the Information Highway.

National Center for Education Statistics/NASA/NSF, Orlando, FL, 1994. Institutionalizing Networking in an Urban School District.

Community College of Allegheny County, Pittsburgh, PA, 1993. Alternative Ways to Identify Talented Math Students.

National Council of Teachers of Mathematics Regional Conference, Pittsburgh, PA, 1993. Implementing Technology in the Classroom: One District's Attempt.

MOS/SOS Mathematics and Science Workshop, Johnstown, PA.1993. Discovery Approaches in Geometry.

College in High School Teachers' Conference, Pittsburgh, PA, 1993. The Challenge of Technology: Implementing Graphics Calculators in AP Calculus.

National Council of Teachers of Mathematics Regional Conference, New York, NY, 1993. Dealing with Data and Statistics--An Activity-based Problem-Solving Approach.

PROFESSIONAL

National Council of Teachers of Mathematics Annual Conference, Seattle,

WA,

ACTIVITIES (CONT.)

1993. Mathematics for Everyone: An Urban Crisis.

National Council of Supervisors of Mathematics Annual Conference, Seattle, WA, 1993. School Restructuring and the NCTM Standards.

Pittsburgh Writers Fair, Pittsburgh, PA , 1992, 1997, 1998. Writing in Mathematics.

National Council of Supervisors of Mathematics Annual Conference, Nashville, TN, 1992. Mathematics for Everyone: An Urban Crisis.

National Council of Teachers of Mathematics Regional Conference, Columbus, OH, 1992. Mathematics for Everyone: An Urban Crisis.

Pennsylvania Council of Teachers of Mathematics Annual Conference, Valley Forge, PA, 1992. One Problem, One Class: Implementing the Professional Teaching Standards.

Pennsylvania Council of Teachers of Mathematics Annual Conference, Pittsburgh, PA, 1991. Statistics - Activities for Middle School Students.

National Council of Teachers of Mathematics Regional Conference, Baltimore, MD, 1991. Incorporating Technology into the Math Curriculum: A District's Attempt.

Phillips Exeter Academy Mathematics and Computer Conference,1987,
National Federation of Urban Suburban School Districts' Conference,1987,
NSF Geometry Conference, Syracuse University, 1987. The Geometry Proof Tutor.

MathCounts, 1988-1993. Guest Lecturer on Problem Solving.

PUBLICATIONS

Wertheimer, R. (2001). A study of pedagogical approaches to computational fluency: teaching mental arithmetic while using calculators as a learning tool. Unpublished doctoral dissertation, University of Pittsburgh, Pittsburgh.

Wertheimer, R. (1999). Definition and identification of mathematical promise. In L. J. Sheffield (ed.), Developing Mathematically Promising Students. NCTM: Reston, VA.

Wertheimer, R. & Briars, D. (1997). Technology implementation in secondary mathematics education: Case studies from the Pittsburgh Public Schools. In J. G. Harvey (ed.), Models for mathematics technology teacher development programs, MAA: Washington, D.C.

PUBLICATIONS

Wertheimer, R. & Zinga, M. (1997). Applying chaos theory to school reform.

(CONT.)

Internet Research. V. 8 (2), pg. 101-14.

Futoran, G. C. & Wertheimer, R. (1995). Professional development and the Internet: Experiences of Common Knowledge: Pittsburgh. In D. A. Willis, B. Robin & J. Willis (eds.), Technology and Teacher Education Annual 1995 (pp. 661-664). Paper presented at SITE 95 - Sixth International Conference of the Society for Information Technology and Teacher Education, San Antonio, TX, March 24, 1995.

Wertheimer, R. 1995 (Feb.). Issues of implementation. Mathematics Teacher. V. 88, pg. 86-88.

Wertheimer, R. 1990 (April). The geometry proof tutor. Mathematics Teacher. V. 84, pg. 308-16.