



Genevieve Davis, Ph.D

Associate Professor

TLC

gdavis@kent.edu

Education

Ph.D., Curriculum & Instruction

1983

University of Connecticut

Areas of concentration:

Mathematics Education and Special Education

Dissertation Title: Hemispheric Laterality, Gender, and Verbal and Visuospatial Processing Proficiency as Predictors of Mathematical Ability in Young Children

M.A., Mathematics Education /Special Education

1974

University of Connecticut

University of Connecticut

Areas of concentration:

Mathematics Education /Special Education

Child Development/Family Relations

B.A., Education and Mathematics

Bethany College, Bethany, West Virginia

Other Professional Experience

International Baccalaureate Organization: Workshop Leader, Consultant, Site Visitor

6/2009 - present

Ohio Board of Regents Grant

02/2007 - 06/2008

Co-PI with Dr. Judith Melillo [\$113,000] Akron Mathematics Academy Grades 3-8 Mathematics

Mathematics and Science Partnership Project [MSP]

02/2006 - 06/2009

Co-PI with Dr. Trish Koontz [\$750,000] Ohio Department of Education Ohio Mathematics Academy Program Grades 3-6 Mathematics

10/2003 - 10/2003

National Council of Teachers of Mathematics Invited delegate to St. Petersburg, Russia

11/2000 - 11/2000

National Council of Teachers of Mathematics
Invited delegate to South Africa (Cape Town and Johannesburg)

06/1999 - 07/1999

National Council of Teachers of Mathematics
Invited delegate to China (Beijing, Nanjing, Xi'an and Shanghai)

01/1993 - 04/1994

Consultant and Writer
International Schools Curriculum Project (ISCP)
Mathematics, Pre-K - Grade 6 Geneva, Switzerland and Amsterdam, the Netherlands

08/1993 - 06/1994

Mathematics Consultant PK-Grade 6; 6th grade teacher, International School of Amsterdam, the Netherlands

08/1992 - 08/1998

Elected Member, Ohio Council of Teachers of Mathematics and The Ohio Department of Education Standards Task Force - Mathematics Assessment

08/1989 - present

KSU Faculty, Mathematics Education
(Except 1993-1994) Kent State University
Teaching, Leadership and Curriculum Studies
Program Area: Mathematics Education

Publications

Davis, G. & Keller, D. (2009). *Science and Mathematics in a Child's World*. Columbus, Ohio: Prentice Hall. 374 pages. 2009

Publication: *Books Authored*

Davis, G. and Tu, T. (2008). Mathematics and Science in the Early Years: International Perspectives and Theoretical Views in Grotewell, P.G. & Burton, Y.R. *Early Childhood Education: Issues and Developments*, pp. 23-45. 2008

Publication: *Book Chapters*

2006-2008 Math Science Partnership [MSP], Ohio Mathematics Academy Program [OMAP] Curriculum Development -- Curriculum has been developed with Dr. Trish Koontz 50/50. The curricular modules: 2008 MSP OMAP Data Analysis, Measurement, Geometry and Processes, Grades 3-6, Revised 2007 MSP OMAP Data Analysis, Measurement, Geometry and Processes, Grades 3-6 2007 MSP OMAP Number, Algebra Probability and Processes, Grades 3-6 Revised 2006 MSP OMAP Number, Algebra Probability and Processes, Grades 3-6 Module 2008

Publication: *Curriculum*

Davis, G. & Koontz, T. (August 2008) Math Science Partnership Program Federal report. A two year comparison of Analyzing Student and Teacher Data to Inform Professional Development Practice: Ohio Mathematics Academy Program SUM- PLUS. 46 pages plus appendices 2008

Publication: *Monographs*

- Koontz, T. & Davis, G. (August 2007) Math Science Partnership Program Federal report. 2008
 Designing and Implementing an Effective Professional Development Program : Ohio Mathematics Academy Program SUM- PLUS [Students Understanding Mathematics Planning, Learning, Understanding and Success 42 pages plus appendices.
 Publication: *Monographs*
- Davis, G. & Melillo, J. Akron Mathematics Academy -OBR Grant - The Professional Development of Teachers Grades 3-6 Enhancing Mathematical Content Knowledge. 2008
 Publication: *Monographs*
- 2005-2006 NEOCEX High School and College Geometry Curriculum: Polygons, Platonic Solids, Surface Area, Geometric Dissections I and II, and Angle Trisection. 2006
 Publication: *Curriculum*
- Davis, G. & Hyun, E. (2005).A study of kindergartners' spatial representation in a mapping project.*Mathematics Education Research Journal*, pp. 73-100. 2005
 Publication: *Journal Articles, Refereed*
- Hyun,E. & Davis, G. (2005). Study of kindergartners' converstiaons of computer-based technology use.*Early Childhood Research Quarterly*. pp.118-135 2005
 Publication: *Journal Articles, Refereed*
- Davis, G. (2003) Section contributor. Proceedings of the Professional Activities of the Mathematics Education Delegation to St. Petersburg, Russia. 2003
 Publication: *Conference Proceedings*
- Davis, G. (2001) Section contributor. Proceedings of the Professional Activities of the Mathematics Education Delegation to the Republic of South Africa. Second Grade Mathematics at Mickelfield Primary School - Cape Town, South Africa. 2001
 Publication: *Conference Proceedings*
- Davis, G. (2000) Experiencing the vision: Seeing mathematics differently (Bowling Green State University and Hancock County). Ohio Board of Regents, Dwight D. Eisenhower Professional Development Program. Project evaluation report. (28 pages) 2000
 Publication: *Monographs*
- Davis, G. (1999) Section contributor. Proceedings of the Professional Activities of the Mathematics Education Delegation to the People's Republic of China. Elementary Mathematics Teacher Education at Kent State University 1999
 Publication: *Conference Proceedings*
- Davis, G. (1999) Experiencing the vision: Seeing mathematics differently (Bowling Green State University and Wood County). Ohio Board of Regents, Dwight D. Eisenhower Professional Development Program. Project evaluation report. (25 pages) 1999
 Publication: *Monographs*
- Davis, G. (1998). Section Contributor, Mathematics, pre-kindergarten - Grade Six. International Schools Curriculum Project (ISCP) - International Baccalaureate Primary Years Programme (Invited and refereed) 1998
 Publication: *Curriculum*

- Davis, G. (1997). Exploring concepts of personal time with young children. Ohio Journal of School Mathematics. (Refereed) 1997
 Publication: *Journal Articles, Refereed*
- Davis, G. & T. Koontz (1997). Section contributors. Model Mathematics Assessments. Ohio Council of Teachers of Mathematics Standards Task Force and the Ohio Department of Education Division of Curriculum, Instruction, and Professional Development. (Invited and refereed) 1996
 Publication: *Curriculum*
- Davis, G. & Ambrose, R. (1996). Discovering time and calendar concepts with young children. Journal of the Ohio Elementary Kindergarten Nursery Educators. Vol. 15, pp.12-15. (Refereed). 1996
 Publication: *Journal Articles, Refereed*
- Davis, G. (1996). Exploring geometric concepts with young children. Ohio Journal of School Mathematics. No.32, pp. 22-24. (Refereed). 1996
 Publication: *Journal Articles, Refereed*
- Contributor/Writer: International Schools Curriculum Project: Curriculum and Mathematics [Amsterdam and Geneva]. Adopted by International Baccalaureate [IB] Organization as IB Primary Years Program Mathematics -ages 3-12. 1994
 Publication: *Creative Activity*

Presentations

- Davis, G. Algebraic foundations for number in the early years. National Council of Teachers of Mathematics Regional Conference. Boston, Massachusetts. 2009
 Type: *Regional Refereed*
- Davis, G. & Barbour, N. (2009, August). *Preparing early childhood teachers to work in a global society.* 2009
 Paper presented at the European Early Childhood Education Research Association Annual Conference. Strasbourg, France
 Type: *International Refereed*
- Arhar, J; Koontz, T.; Davis, G; & Beal, J. (June, 2008). Critical need for mathematics professional development. American Association of College Teacher Educators (AACTE) a Day on the Hill. Washington D.C. 2008
 Type: *National Refereed*
- Davis, G & Koontz, T. (May 2008) Geometry and Spatial thinking: Using Processes to Improve Mathematical Content Knowledge. International Congress for Constructivist Mathematics Learning Istanbul, Turkey. 2008
 Type: *International Invited*
- Koontz, T. & Davis, G. (May 2008) Engaging Students in Geometric Reasoning and Spatial thinking. Kent State Koleji, Istanbul, Turkey. 2008
 Type: *International Invited*
- Davis, G & Koontz, T. (May 2008) The Role of Strategies and Representation in Problem Solving. Kent State Koleji, Istanbul, Turkey. 2008

Type: *International Invited*

Koontz, T. & Davis, G. (May 2008) Mathematical Thinking. International Congress for Constructivist Mathematics Learning, Istanbul, Turkey. 2008

Type: *International Invited*

Davis, G. Algebraic thinking in young children. National Council of Teachers of Mathematics. Atlanta, Georgia. 2007

Type: *National Refereed*

Davis, G. Theoretical foundations of algebraic thought in young children. National Council of Teachers of Mathematics Regional Conference. Richmond, Virginia. 2007

Type: *Regional Refereed*

Koontz, T. & Davis, G. (November 2007) Math Science Partnership Program Lessons Learned from the Ohio Mathematics Academy Program SUM- PLUS [Students Understanding Mathematics Planning, Learning, Understanding and Success Ohio Department of Education, Columbus, Ohio 2007

Type: *State Invited*

Davis, G. & Melillo, J. (2007). Professional Development ~Akron Mathematics Academy. OCTM Columbus, Contributing teachers: Kim Buehler and Charlene Tabata. 2007

Type: *State Refereed*

Davis, G. Foundations for algebraic thinking in [young children. Ohio Council of Teachers of Mathematics. Toledo, Ohio. 2006

Type: *State Refereed*

Davis, G. & Koontz, T. (December 2006) Math Science Partnership Program Planning and Implementation of Ohio Mathematics Academy Program SUM- PLUS [Students Understanding Mathematics Planning, Learning, Understanding and Success Ohio Department of Education, Columbus, Ohio 2006

Type: *State Invited*

Davis, G., Burroughs, C. Neuzil, J. Christensen, J. (2006) NEOCEX: An exploration in two- and three dimensional geometry. Kent State University NEOCEX 1st Mathematics Science Symposium, OBR 2006

Type: *Local Invited*

Davis, G. A theoretical perspective on 'practicing the facts'. Ohio Council of Teachers of Mathematics. Dayton, Ohio. 2005

Type: *State Refereed*

Davis, G. Algebraic thinking in young children. National Council of Teachers of Mathematics Western Regional Conference. Denver, Colorado. 2005

Type: *Regional Refereed*

Davis, G. (2005) Constructivist approaches to primary mathematics: Building Meaning for Number. Cleveland Heights/University Heights Staff Development Day, Cleveland Heights, Ohio. 2005

Type: *Local Invited*

- Davis, G. (2005) Constructivist approaches for developing concepts for multiplicative thinking. Cleveland Heights/University Heights Staff Development Day, Cleveland Heights, Ohio. 2005
Type: *Local Invited*
- Stoll, J. & Davis, G. Exploring patterns with two to five year olds. Ohio Council of Teachers of Mathematics. Akron, Ohio. 2004
Type: *State Refereed*
- Davis, G. Mathematics education teacher preparation. Hertzen State Pedagogical University, St. Petersburg, Russia. 2003
Type: *International Refereed*
- Davis, G. Kindergartners' spatial representation in a year long mapping project. European Council of International Schools (ECIS). Amsterdam, the Netherlands 2003
Type: *International Refereed*
- Davis, G. & Nadler, M. Mathematics education in the Republic of South Africa. Association of Childhood Education International. San Diego, California. 2002
Type: *International Refereed*
- Davis, G. and J. Melillo (2001) Explorations with geometry and measurement for middle school. National Council of Teachers of Mathematics Regional Conference. (Accepted) Columbus, Ohio. 2001
Type: *Regional Refereed*
- Davis, G. and N. Condit (2001) NCTM Standards based Kindergarten experiences. National Council of Teachers of Mathematics Regional Conference. Columbus, Ohio. 2001
Type: *Regional Refereed*
- Davis, G. and C. Steiner (2001) Challenge and motivate your middle school math students. National Council of Teachers of Mathematics Regional Conference. Columbus, Ohio. 2001
Type: *Regional Refereed*
- Davis, G. (2000) Exploring measurement with young children. Ohio Council of Teachers of Mathematics Annual Conference. Toledo, Ohio. 2000
Type: *State Refereed*
- Davis, G. (1999) Exploring geometric concepts with young children. National Council of Teachers of Mathematics Eastern Regional Conference. Pittsburgh, Pennsylvania. 1999
Type: *State Refereed*
- Davis, G. (1999) A Model for Preservice Teacher Mathematics Education. Nanjing University, Nanjing, China. 1999
Type: *State Refereed*
- Davis, G. (1998) Philosophical and psychological aspects of assessment, curriculum and teaching; and Mathematics as content and process inquiry: implications for assessment. International School of Amsterdam, International Schools Curriculum Project. Amsterdam, the Netherlands. (Invited) 1998

Type: *International Refereed*

Davis, G. (1997) Developing concepts for number and number relationships with young children. Association for Childhood Education International. Portland, Oregon. 1997

Type: *International Refereed*

Davis, G. (1997) Proficiency testing: implications for teaching young children. National Council of Teachers of Mathematics Eastern Regional Conference. Cleveland, Ohio. 1997

Type: *Regional Refereed*

Davis, G. (1996). Teaching and learning at an international school "Educational for international understanding." Association for Childhood Education International. Minneapolis, Minnesota. 1996

Type: *International Refereed*

Davis, G. (1996) The role of drill and practice: Some perspectives from research. Ohio Council of Teachers of Mathematics. 1996

Type: *State Refereed*

Service

Workshop, International Baccalaureate Organization 2009 - present

October, 2009: Indianapolis, Indiana: Workshop leader, International Baccalaureate Organization, Primary Years Program, Category 1

Type: *International*

Faculty Advisory Committee 2008 - 2009

Faculty Advisory Committee 1992-93; 1996-97; 2000-01; 2001-02; 2003-04 elected.

Type: *Department*

Member, Professional Standards Committee 2008 - 2009

Review and make recommendation about KSU professional standards.

Type: *University*

Member, International Baccalaureate Initiative 2008 - 2009

Type: *Department*

Judge, Research and Graduate Studies 2007 - 2007

Reviewer, Research Incentive Grant Proposals (2007)

Type: *University*

Consulting, McNair Scholars' Program 2006 - 2006

McNair Scholars Mentor (summer 2006) Mentored an undergraduate student - grant work and research in Mathematics Education

Type: *University*

Member, Citation and Recognition Committee 2005 - 2011

Advisory to the President for honorary awards and degrees conferred at commencements.

Type: *University*

Representative, KSU Alumni

2004 - 2005

New Student Orientation parents and students (2004; 2005)

Type: *University*

Coordinate, Honors College

2003 - 2004

Honors College Advising Individual Honors Thesis advisor: Fall 2003 (2 students); Fall 2004 (1 student)

Type: *University*

Curriculum Committee

2002 - 2009

Curricular review and decisions for Teaching, Leadership and Curriculum Studies Department.

Type: *Department*

Dissertation Awards Committee

1999 - 2000

Review and evaluation of dissertations - to determine award status.

Type: *College*

member, Elementary Program Area: Kotis, Van Campen, and Mancuso Scholarship review

1998 - 2001

Type: *Department*

member, Undergraduate Appeals, Professional Standards and Admission Committee

1998 - 1999

Undergraduate Appeals, Professional Standards and Admission Committee (1998-1999)

Type: *College*

Undergraduate Council

1998 - 2001

Undergraduate review of programs and curricular matters for the college.

Type: *College*

Summit County Technology Committee

1996 - 1996

Summit County Technology Committee (Spring, 1996 - Fall 1996)

Type: *College*

College Advisory Council

1996 - 1997

Type: *College*

member, Student Center Advisory Board

1996 - 1997

Type: *University*

member, Registration Advisory Committee

1996 - 1997

Type: *University*

member, Foundations Subcommittee,
Middle Childhood Education Cohort (1995-1997)
Type: *Department*

1995 - 1997

member, Student Center Advisory Board
Student Center Advisory Board (1992-1994)
Type: *University*

1992 - 1994

Grants

Co PI, Akron Mathematics Academy
Mathematics Education Professional Development - Grades 3-8
Collaboration with: Genevieve Davis Judith Melillo
Awarded: \$113,000.00
Ohio Board of Regents - Training

2007 - 2008

Co PI, Mathematics & Science Partnership Program [MSP] Ohio Mathematics Academy Program [OMAP] Grant
Mathematics Education Professional Development Grades 3-6
Collaboration with: Genevieve Davis Trish Koontz
Awarded: \$750,000.00
Ohio Department of Education - Training

2006 - 2009



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