

NICOLE PANORKOU

CURRICULUM VITAE

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EDUCATION

June 2011 Ph.D. in Mathematics Education, UCL Institute of Education (UK)

Dissertation: A phenomenographic study of students' experiences of dimension

Supervisor: Professor Dave Pratt

Examiners: Prof. Richard Noss and Prof. John Mason

June 2006 MSc in Mathematics Education, University of Warwick (UK)

June 2005 BSc in Educational Sciences - with specialization in Mathematics Education and ICT, University of Cyprus (Cyprus)

RESEARCH PROJECTS AND EXPERIENCE

[Current] September 2017 – August 2022. Co-Principal Investigator. Assimilating Computational and Mathematical thinking into Earth and Environmental Science.

Funding: National Science Foundation, \$1,147,085.

Brief description: This is an Exploratory Integration (EI) project which aims to nurture the next generation of innovators by advancing student learning in STEM+C through a seamless integration of earth and environmental science, mathematics and computer science in Grades 5-7.

[Current] May 2017 – Present Principal Investigator. The D²DYME project: Designing a Digital Game for Dynamic Measurement.

Funded by: Summer Grant Proposal Development Award, \$4,000

Brief description: The D²DYME project aims to design a digital game learning system (DGLS) to foster students' DYME reasoning that will provide *targeted* learning activities and *formative* feedback for students and generate individualized and group *profiles of student progress* for teachers.

September 2017 – February 2020. Principal Investigator. When counting cubes is not enough: Exploring volume measurement dynamically (DYME-V).

Funded by: National Academy of Education postdoctoral fellowship \$70,000.

Brief description: DYME-V engages students in building 3D objects through dynamic digital experiences of ‘sweeping’ lengths and ‘extruding’ areas, constructing in that way a meaning of volume as a continuous structure that can dynamically change based on three linear measures: length, width and height. The DYME-V approach opens up novel avenues toward transforming the learning and teaching of measurement by utilizing technology, which makes this abstract concept significantly more accessible to students.

May 2015 - August 2017 Principal Investigator. The DYME project: Developing students’ thinking of **Dynamic Measurement**

Funded by: Spencer Foundation \$49,443.80; Career Development Grant, MSU \$3,075.

Brief description: In DYME project, we explore measurement in a dynamic way in order to support students in developing a conceptual understanding of area and volume. This dynamic approach to measurement involves experiences that show how surfaces and 3D shapes are created by lower-dimensional objects, such as visualizing area measurement as a “sweeping” of a line. This idea of dynamic measurement seems promising for developing the abstract notions of area and volume formulas as it points to the significance of the dimensions for defining and measuring an object.

September 2015 – May 2019 Consultant/Instructor. Newark Montclair Urban Teacher Residency Program (NMUTR)

Funded by: Teacher Quality Partnership grant, U.S. Department of Education \$6.2 million

Brief description: The NMUTR is an innovative apprenticeship-based program for individuals with a deep commitment to teaching and a strong interest in urban education. Working from the model of medical residencies, the NMUTR provides on-site education, intensive classroom experiences with a master teacher, and three years of mentoring and professional development in the schools where residents are hired to teach.

May 2015 – July 2016 Collaborator/Consultant. EpiSTEMic project.

Brief description: The epiSTEMic Summer Program engages K-8 students in educational experiences that foster creativity, imagination, problem solving, and critical thinking through interdisciplinary STEM instruction. Instruction is led by a team of MSU faculty, and in-service and pre-service students. I collaborate with Drs. Steven Greenstein and Sumi Hagiwara in designing activities for kids using the educational game Minecraft.edu.

Sept 2014 – Dec 2015 Collaborator/Consultant. Integrated System of Personalized Learning (ISPL) project

Funded by: Pearson Learning \$28,000.

Brief description: In the ISPL project, we intend to build a learning system that allows us to conduct research following an iterative design-based research approach. We envision a system that includes the following components: Assessment activities, including an online game, online performance task and classroom based activities aligned to a learning progression in elementary mathematics; A platform from which the assessments would be delivered as well as scores from classroom (non-digital) activities to be entered; A student profile that provides a probability for where on the learning progression the student falls. Eventually, this profile would include additional information about a student (behaviors, interests); Instructional resources, aligned to the learning progression, that are available to teachers and students; and Professional development on the learning progression for teachers.

Sept 2014 - Present Principal Investigator. The TRIG Project: Developing a trajectory of Transformation-based Reasoning In Geometry. Co-PI: Steven Greenstein.

Brief Description: This proposed study aims to address the need for the development of learners' geometric reasoning starting in early elementary school by designing a framework around transformation-based reasoning that would help students reach the geometry expectations as described by the Common Core Standards for Mathematics. We aim to engage young students' transformation-based ideas beginning in topology and then see these ideas as foundational for the learning of Euclidean geometry. We suggest an innovative way of studying geometry by a) developing a conceptual learning trajectory of transformation-based reasoning that can provide a bridge from topology to Euclidean geometry, and b) providing an instructional system consisting of a software environment and curriculum materials that can engage and further develop learners' transformation-based ideas in topology and Euclidean geometry.

Sept 2013 – Sept 2014 Technology Consultant. Professional Development for Newark public schools, Race to the Top 3.

Funded by: Federal funding, \$124,000.

Brief Description: Newark Public Schools sub-award from the Race To The Top 3 (RTTT3) federal funding, Professional Services Contract between the Newark Public School System and Montclair State University to conduct a professional development project with 5th and 6th grade teachers implementing the Common Core State Standards for Mathematics. PIs Erin Krupa and Steven Greenstein. \$283,000. August 2012-July 2015.

Sept 2013 – Sept 2015 Principal Investigator. Graphs 'N Glyphs project: Facilitating the teaching and learning of geometric transformations through animation (Continuation of Fulbright Project).

Jan 2012 – Aug 2013 Post-doctoral Fellow. Working with Professor Jere Confrey, Dr Alan Maloney and their research team on the projects Turnonccmath project under DELTA II, and MOOC-ED.

Funded by: National Science Foundation, Qualcomm, and the Oak Foundation.

Brief description: TURNONCCMATH (DELTA II) is a project designed to elaborate the scientific basis of learning trajectories research, and to develop learning trajectories with which to interpret the Common Core State Standards for Mathematics (www.turnonccmath.net). At the same time, we designed a Massive Open Online Course for Educators (MOOC-ed) for professional development on the learning trajectory of Equipartitioning (www.mooc-ed.org).

Sept 2011 – Aug 2012 Post-doctoral fellow/ Fulbright Visiting Scholar North Carolina State University. Working with Professor Jere Confrey and her research team on the projects DELTA and LPPSync

Funded by: National Science Foundation

Brief description: DELTA is an NSF funded project to build diagnostic assessments for concepts in rational number reasoning for grades K-8. The Wireless LPPSync (Building Learning Progress Profiles (LPP) Synchronized for Rational Number Reasoning with Socially Networked Wireless Devices) Project explores the use of smartphones and wireless technology as a tool to improve educational outcomes through delivery of customized assessment environments in conjunction with location-based resources, collaborative learning, peer mentoring, and social engagement.

Sept 2011 – Dec 2011 Fulbright Visiting Scholar, North Carolina State University. Supervised by Professor Jere Confrey and Dr Alan Maloney.

Funded by: Fulbright Commission, US Department of State \$13,000.

Brief description: The Fulbright research project was about facilitating the teaching and learning of geometric transformations in elementary schooling through the software Graphs 'N Glyphs which is developed by Prof. Jere Confrey.

Sept 2006 – June 2011 PhD research. Institute of Education, University of London
Brief description: My PhD study explored the experiences of dimension among young school children.

RESEARCH SUPERVISION AND MENTORING

I have supervised and mentored the following doctoral students:

2013 - Present **Montclair State University**

Dissertation committee

Erell Feb Germia (doctoral student) – I serve as a committee chair
Toni York (doctoral student) – I serve as a committee chair
Adam Anderson (doctoral student) – I serve as a committee chair
Frank Forte (doctoral student) – I serve as a committee chair
Abiodun Banner (doctoral student) – I serve as a committee member
Malack Amenya (doctoral student) – I serve as a committee member
Debasmita Basu (doctoral student) - I served as a committee chair, graduated 2019
Madhavi Vishnubhotla - I served as a committee chair, 2016 - 2018
Matthew Dalzell (doctoral student) – I served as a committee member, 2020-2021
Justin Seventko - I served as a committee member, 2015 – 2017
Sara Mastellone - I served as a committee member, 2014 - 2017

Thesis committee

Taheeda Street-Conaway (Masters student) – I served as a committee chair, graduated 2019

Doctoral advisor

Toni York - Doctoral student
Lyndsay Werner - Doctoral student
James Janakat - Doctoral student

Research assistant supervision

Amanda Provost – Graduate Research Assistant (GRA) for STEM+C project (2021 -)
Toni York – Graduate Research Assistant (GRA) for STEM+C project (2018 -)
Erell Feb Germia – GRA for DYME-V and STEM+C projects (2016 -)
Mustafa Mohamed - Graduate Research Assistant (GRA) for STEM+C project (2020)
Youngjun Kim - Graduate Research Assistant (GRA) for DYME project (2019 - 2021)
Su San Lim - Graduate Research Assistant (GRA) for STEM+C project (2019 -2020)
Taheeda Street-Conaway – GRA for STEM+C project (2018-2019)
Debasmita Basu - GRA for DYME-V and STEM+C projects (2015 -2019)
Madhavi Vishnubhotla - GRA for DYME project (2015 - 2018)
Gurkan Kose - GRA for DYME project (2014 - 2017)
Justyna Rybka - GRA for DYME project (2014 - 2015)
Douglas Platt - GRA for Graphs 'N Glyphs and DYME projects (2013 - 2016)
Justin Seventko – GRA for epiSTEMic project (2015 – 2016)
Karmen Yu – GRA for epiSTEMic project (2014 - 2016)
Trina Marcella Wooten – GRA for TRIG project (2014 - 2015)

Teaching assistant supervision

Sherry Yang – Graduate Teaching Assistant for MTHM 201

Youngjun Kim – Graduate Teaching Assistant for MTHM 579 and MTHM 577

2011 - 2013 North Carolina State University

Research assistant supervision

Jennifer Nickell – GRA for TurnOnCCMath project

Tamar Avineri – GRA for TurnOnCCMath & MOOC-ed projects

Andrew Corley – GRA for DELTA I and II projects

Nadia Monroe – GRA for DELTA I project

Zuhal Yilmaz – GRA for DELTA I project

TEACHING EXPERIENCE (ACADEMIC)

Mathematical Modeling in the Sciences (MATH 742), Instructor, Doctoral course, Montclair State University, Spring 2022.

Math Materials for Teachers of Mathematics (MATH 573), Instructor, Graduate course, Montclair State University, Spring 2022.

Applied Mathematics for the Middle School (MTHM 579), Instructor, Graduate course, Montclair State University, Fall 2021.

Educational Technology for School Mathematics (MATH 513), Instructor, Graduate course, Montclair State University, Spring 2021.

Contemporary teaching of mathematics (MATH 572), Instructor, Graduate course, Montclair State University, Spring 2019.

Design Research (MATH 744), Instructor, Doctoral course, Montclair State University, Fall 2018.

Mathematics Research I (MATH 497), Instructor, Undergraduate course, Montclair State University, Fall 2018.

Mathematics Research II (MATH 498), Instructor, Undergraduate course, Montclair State University, Fall 2018.

Technological tools for Education in Mathematics (MATH 740), Instructor, Doctoral course, Montclair State University, Fall 2016; Fall 2020.

Learning Trajectories in Mathematics Education (MATH 744), Instructor, Doctoral course, Montclair State University, Spring 2015.

Mathematics in Elementary Schools P-6 II (MTHM302), Instructor, Undergraduate course, Montclair State University, Fall 2014 (2 sections), Spring 2016 (2 sections), Fall 2017 (2 sections), Fall 2018 (1 section).

Mathematics in Elementary Schools P- 6 (MTHM201), Instructor, Undergraduate course, Montclair State University, Fall 2013 (2 sections), Spring 2014 (one section), Spring 2017 (2

sections); Fall 2019 (2 sections); Spring 2020 (2 sections); Fall 2020 (2 sections); Spring 2021 (one section).

Mathematics Education in the Elementary School (MATH 577), Instructor, Masters' course, Montclair State University, Spring 2014 (two sections), Fall 2015 (two sections), Fall 2021.

Dissertation Proposal Seminar (MATH 830), Instructor, Doctoral course, Montclair State University, Spring 2014.

Teaching mathematics with technology, Instructor, Professional Development course for Newark Public Schools (Grades 5 & 6), Common Core Standards for Mathematics: Race To The Top 3, Fall 2013 - Spring 2014.

Rational Numbers and Operations: K-5 Learning Trajectories, MOOC-ED (Massive Open Online course), Instructor and Designer, Professional development course for pre- and in-service teachers, teacher educators and administrators. North Carolina State University (URL: www.mooc-ed.org), Summer 2013.

Interpreting the Common Core Math Standards using Learning Trajectories, Instructor, Professional development course for pre-service teachers. North Carolina State University, Spring 2013.

Rational Numbers and Operations: K-5 Learning Trajectories (ELM 556), Instructor, Elementary Mathematics Add-on License Course. North Carolina State University, Fall 2012.

Designing Mathematical Learning and Teaching with digital technologies, Teaching Assistant, MA course, Institute of Education. Co-operation with Professor Dave Pratt and Professor Richard Noss, Fall 2010.

From methods to methodology: Preparing to write, Instructor, Workshop to students from the MPhil/PhD course, Institute of Education (University of London). Co-operation with Professor Chris Husbands. Summer 2010, Spring 2011, Summer 2011.

Research Design, Instructor, Workshop to students from the MPhil/PhD course, Institute of Education (University of London). Co-operation with Professor Chris Husbands, Summer 2010, Summer 2011.

TEACHING EXPERIENCE (NON-ACADEMIC)

Elementary school teacher (full-time). Cyprus Educational Mission - Cyprus Ministry of Education and Culture: I have gained experience of working in five different schools in London (UK) namely, St Cyprian's primary school, Walker, High Barnet, Woodhouse and Finchley. September 2006 – August 2011.

PEER-REVIEWED PUBLICATIONS IN JOURNALS

- Panorkou, N.** (2021). Exploring Students' Dynamic Measurement Reasoning About Right Prisms and Cylinders, *Cognition and Instruction*, 39(4), 477-511. DOI:10.1080/07370008.2021.1958218
- Prasad, A., Lal, P., Wolde, B., Smith, M., Zhu, M., Samanthula, B.K., **Panorkou, N.** (2021), Exploring the human-nature connection and the perceived risk of nature in children, *Applied Environmental Education & Communication*, 21(1), 87-101. DOI: <https://doi.org/10.1080/1533015X.2021.1991508>
- Panorkou, N.** (2020). Dynamic Measurement Reasoning for Area and Volume. *For the Learning of Mathematics*, 40(3), pp. 9-13.
- Panorkou, N.** & Germia, E. (2020). Integrating math and science content through covariational reasoning: The case of gravity. *Mathematical Thinking and Learning*, 23(4), 318-343. <https://doi.org/10.1080/10986065.2020.1814977>
- Panorkou, N.** (2020). Reasoning dynamically about the area of a rectangle: The case of Lora and Isaac. *Digital Experiences in Mathematics Education*, 6(3), 257-292. <https://doi.org/10.1007/s40751-020-00074-4>
- Germia, E. & **Panorkou, N.** (2020). [Using Scratch programming to explore coordinates](#). *Mathematics Teacher: Learning and Teaching PreK-12 MTLT*, 113(4), pp. 293-300.
- Basu, D., **Panorkou, N.**, Zhu, M., Lal, P., & Samanthula, B. K. (2020). [Exploring the Mathematics of Gravity](#), *Mathematics Teacher: Learning and Teaching PK-12 MTLT*, 113(1), 39-46.
- Basu, D. & **Panorkou, N.** (2019). Integrating covariational reasoning and technology into the teaching and learning of the greenhouse effect. *Journal of Mathematics Education*, 12(1), pp.6-23.
- Panorkou, N.** & Kobrin, J. (2017). Enhancing Teachers' Formative Assessment Practices through Learning Trajectory-Based Professional Development. *Mathematics Teacher Educator*, 5 (2), pp. 178-201.
- Panorkou, N.** & Pratt, D. (2016). [Using Google SketchUp to research students' experiences of dimension in geometry](#). *Digital Experiences in Mathematics Education*, 2 (3), pp. 199-227.
- Panorkou, N.** & Maloney, A. (2016). Early Algebra: Expressing Covariation and Correspondence. *Teaching Children Mathematics*, Vol. 23 (2), pp. 90-99.
- Kobrin, J. & **Panorkou, N.** (2016). The Building Blocks of Learning: An informed understanding of learning progressions can lead to more productive discussions about student work. *Educational Leadership*. Vol. 73, No. 7, pp. 32-36.
- Panorkou N.** & Maloney A. (2015) [Elementary Students' Construction of Geometric Transformation Reasoning in a Dynamic Animation Environment](#). *Constructivist Foundations* 10(3): 338–347.

Panorkou N. & Maloney A. (2015) [Authors' Response: Planting Seeds of Mathematical Abstraction](#). *Constructivist Foundations* 10(3): 352–354.

Panorkou N. (2015) [Proposing a Framework for Exploring “Bridging”](#). *Constructivist Foundations* 10(3): 331–332.

Panorkou, N (2007), Embracing two-dimensional and three-dimensional geometry, *Educate*, 7(1), pp. 85-86.

BOOK CHAPTERS

Browning, C.A., Harrison, J.L., Harrison, R., Ko, Y., **Panorkou, N.**, & Yoder, M.A. (2016). Using children’s thinking to develop mathematical content knowledge. In L.C. Hart, S. Oesterle, S.S. Auslander & A. Kajander (Eds.) *The Mathematics Education of Elementary Teachers: Issues and Strategies for Content Courses* (pp 25-50). Charlotte, NC: Information Age Publishing.

PEER-REVIEWED PUBLICATIONS IN CONFERENCE PROCEEDINGS

York, T., Germia, E., Kim, Y., & **Panorkou, N.** (2021). Students’ reorganizations of variational, covariational, and multivariational reasoning. In Olanoff, D., Johnson, K., & Spitzer, S. (2021). Proceedings of the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Philadelphia, PA (pp. 308-312).

Panorkou, N. & Germia, E. F. (2020). Examining students’ reasoning of multiple quantities. In A.I. Sacristán, J.C. Cortés-Zavala & P.M. Ruiz-Arias, (Eds.). *Mathematics Education Across Cultures: Proceedings of the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Mexico* (pp. 291-295). Cinvestav / AMIUTEM / PME-NA. <https://doi.org/10.51272/pmena.42.2020>

Panorkou, N. & York, T. (2020). Designing for an integrated STEM+C experience. In A.I. Sacristán, J.C. Cortés-Zavala & P.M. Ruiz-Arias, (Eds.). *Mathematics Education Across Cultures: Proceedings of the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Mexico* (pp. 2233-2237). Cinvestav / AMIUTEM / PME-NA. <https://doi.org/10.51272/pmena.42.2020>

Basu, D. & **Panorkou, N.** (2020). Utilizing mathematics to examine sea level rise as an environmental and a social issue. In A.I. Sacristán, J.C. Cortés-Zavala & P.M. Ruiz-Arias, (Eds.). *Mathematics Education Across Cultures: Proceedings of the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Mexico* (pp. 1064-1068). Cinvestav / AMIUTEM / PME-NA. <https://doi.org/10.51272/pmena.42.2020>

Samanthula, B. K., Mehran, M., Zhu, M. M., **Panorkou, N.**, & Lal, P. (2020). Experiences toward an interactive cloud-based learning system for STEM education. *Proceedings of the 10th IEEE Integrated STEM Education Conference (ISEC)*.

- Panorkou, N.** & Germia, E. (2020). Examining Students' Quantitative Reasoning in a Virtual Ecosystem Simulation of the Water Cycle. In *Gresalfi, M. and Horn, I. S. (Eds.), The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 2 (pp. 959-966)*. Nashville, Tennessee: International Society of the Learning Sciences.
- Germia, E. & **Panorkou, N.** (2020). Exploring angles in a programming environment. *Proceedings of the International Conference to Review Research in Science, Technology and Mathematics Education (pp. 121-129)*. Homi Bhabha Centre for Science Education, TIFR, Mumbai.
- Basu, D. & **Panorkou, N.** (2020). Examining the role of covariational reasoning in developing students' understanding of the greenhouse effect. *Proceedings of the International Conference to Review Research in Science, Technology and Mathematics Education (pp. 211-220)*. Homi Bhabha Centre for Science Education, TIFR, Mumbai.
- Panorkou, N.** (2019). Examining Dynamic Measurement Reasoning for Area and Volume. In Otten, S., Candela, A. G., de Araujo, Z., Haines, C., & Munter, C. (Eds). *Proceedings of the forty-first annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp 390-394)*. St Louis, MO: University of Missouri.
- Panorkou, N.** (2019). Exploring Dynamic Measurement for Volume. In M. Graven, H. Venkat, A. Essien & P. Vale (Eds.). *Proceedings of the 43rd Conference of the International Group for the Psychology of Mathematics Education (Vol. 3, pp 177-184)*. Pretoria, South Africa: PME.
- Basu, D., **Panorkou, N.** & Zhu, M. (2019). Examining the social aspect of climate change through mathematics. *Proceedings of IEEE Integrated STEM education Conference (ISEC) 2019*, Princeton, NJ.
- Zhu, M., Gulati, S. & **Panorkou, N.** (2019). Simulation design and development for learning seasons and lunar phases using HTML5 and JavaScript. *Proceedings of IEEE Integrated STEM education Conference (ISEC) 2019*, Princeton, NJ.
- Panorkou, N.**, Basu, D. & Vishnubhotla, M. (2018). Investigating volume as base times height through dynamic task design. In Hodges, T.E., Roy, G. J., & Tyminski, A. M. (Eds.) *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Greenville, SC: University of South Carolina & Clemson University (pp. 271-274).
- Basu, D. & **Panorkou, N.** (2018). Expanding students' contextual neighborhoods of measurement through dynamic measurement. In Hodges, T.E., Roy, G. J., & Tyminski, A. M. (Eds.) *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Greenville, SC: University of South Carolina & Clemson University (pp. 1155-1162).
- Basu, D. & **Panorkou, N.** (2018). Examining the social aspects of the Greenhouse Effect through Mathematical Modeling. In Hodges, T.E., Roy, G. J., & Tyminski, A. M. (Eds.) *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Greenville, SC: University of South Carolina & Clemson University (pp. 1131).

- Zhu, M., **Panorkou, N.**, Etikyala, S., Basu, D., Street-Conaway, T., Iranah, P., Mazol, D., Hannum, C., Marshall, R., Lal, P. & Samanthula, B. (2018). Steerable Environmental Simulations for Exploratory Learning. In *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (pp. 83-92). Las Vegas, NV, United States: Association for the Advancement of Computing in Education (AACE). Retrieved December 24, 2018 from <https://www.learntechlib.org/primary/p/184951/>.
- Panorkou, N.** (2018). Rethinking the teaching and learning of Area Measurement. In Kay, J. and Luckin, R. (Eds.) *Rethinking Learning in the Digital Age: Making the Learning Sciences Count*, 13th International Conference of the Learning Sciences (ICLS) 2018, Volume 2 (pp. 863-870). London, UK: International Society of the Learning Sciences.
- Zhu, M., **Panorkou N.**, Lal, P., Etikyala S., Germia, E., Iranah, P., Samanthula, B. and Basu, D. (2018). Integrating Interactive Computer Simulations into K-12 Earth and Environmental Science. *Proceedings of IEEE Integrated STEM education Conference (ISEC) 2018*, pp. 220-223, Princeton, NJ.
- Panorkou, N.** (2017) Dynamic Measurement: The crossroad of area and multiplication. In E. Galindo & J. Newton, (Eds.), *Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 339-346). Indianapolis, IN: Hoosier Association of Mathematics Teacher Educators.
- Panorkou, N.** and Vishnubhotla M. (2017). Counting Square Units Is Not Enough: Exploring Area Dynamically. In T. A. Olson & L. Venenciano (Eds.), *Proceedings of the 44th Annual Meeting of the Research Council on Mathematics Learning*, Fort Worth, TX (pp. 97-104).
- Seventko, J., **Panorkou, N.** and Greenstein, S. (2017). Balancing Teachers' Goals and Students' Play in a Sandbox-Style Game Environment. In T. A. Olson & L. Venenciano (Eds.), *Proceedings of the 44th Annual Meeting of the Research Council on Mathematics Learning*, Fort Worth, TX (pp. 73-80).
- Panorkou, N.** (2016). Developing students' thinking of dynamic measurement. In Wood, M. B., Turner, E. E., Civil, M. & Eli, J. A. (Eds) *Proceedings of the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Tucson, AZ: The University of Arizona, pp. 308.
- Greenstein, S., **Panorkou, N.**, Seventko, J. (2016). Optimizing Teacher and Student Agency in Minecraft-Mediated Mathematical Activity. In Wood, M. B., Turner, E. E., Civil, M. & Eli, J. A. (Eds) *Proceedings of the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Tucson, AZ.
- Panorkou, N.** & Greenstein, S. (2015). A Learning Trajectory for Transformation-based Reasoning in Geometry. In Che, S. M. and Adolphson, K. A. (Eds.). *Proceedings of the 42nd Annual Meeting of the Research Council on Mathematics Learning*. Las Vegas, NV (pp. 25-32).
- Panorkou, N.**, Maloney, A. P., Confrey, J. and Platt, D. (2014). Developing elementary students' reasoning of geometric transformations through dynamic animation. In G. Futschek & C. Kynigos (Eds.), *Proceedings of the 3rd International Constructionism*

Conference (pp. 481-489). Vienna: Austrian Computer Society.

Panorkou N., Maloney A. and Confrey J. (2013). A Learning Trajectory for Early Equations and Expressions for the Common Core Standards. *Proceedings of the Annual Conference of the North American Chapter of the International group for the Psychology of Mathematics Education*, November 2013.

Panorkou, N & Pratt, D (2011) Using Google SketchUp to research children's experience of dimension. In B. Ubuz (Eds) *Proceedings of the 35th Conference of the International Group for the Psychology of Mathematics Education*, Vol. 3, pp. 337-344. Ankara, Turkey: PME.

Panorkou, N & Pratt, D (2011) Designing windows for researching children's experiences of dimension. In M. Joubert, A. Clark-Wilson and M. McCab (Eds) *Proceedings of the International conference of technology in mathematics teaching*, Portsmouth: ICTMT'10.

Panorkou, N (2011) A phenomenographic study on students' experiences of dimension. *Proceedings of the International Symposium Elementary Mathematics Teaching*. Prague: SEMT' 11

Panorkou, N & Pratt, D. (2009) Mapping experience of dimension. In Tzekaki, M., Kaldrimidou, M. & Sakonidis, C. (Eds.). *Proceedings of the 33rd Conference of the International Group for the Psychology of Mathematics Education*, Vol. 4, pp. 281-288. Thessaloniki, Greece: PME.

Panorkou, N. (2009), Thinking about dimension. In Tzekaki, M., Kaldrimidou, M. & Sakonidis, C. (Eds.). *Proceedings of the 33rd Conference of the International Group for the Psychology of Mathematics Education*, Vol. 5, pp. 481. Thessaloniki, Greece: PME.

ONLINE RESOURCES

ACMES Research Team (2018). <http://acmes.online>

Panorkou, N. (2018). Dynamic Measurement for Volume Geogebra book. [URL: <https://www.geogebra.org/m/jEjismnjr>]

Panorkou, N. (2016). Dynamic Measurement for Area Geogebra book. [URL: <https://www.geogebra.org/m/pxnjvwfc>]

Confrey J, Nguyen K., Lee K., Corley A., **Panorkou N.** & Maloney A. (2012) *Learning Trajectories, Descriptors, & Bridging Standards for the Common Core State Standards for Mathematics*. North Carolina State University. Raleigh. [URL: www.turnonccmath.net]

DISSERTATION

Panorkou, N. (2011) A phenomenographic study of students' experiences of dimension. British Library: Electronic Theses Online Service (EThos) Available [here](#).

INVITED TALKS

- Panorkou, N.** (2018) When counting cubes is not enough: Exploring volume measurement dynamically. Invited presentation at the Annual Meeting of the National Academy of Education, Washington DC, November 2018.
- Panorkou, N.** (2018). When counting cubes is not enough: Exploring volume measurement dynamically. Invited presentation at the special session “Excellence in Education Research: Early-Career Scholars and Their Work” of the annual American Educational Research Association conference, New York City, April 2018.
- Panorkou, N.** (2016). Unlocking the Power of Student’s Thinking on Geometric Measurement. Invited presentation given at the (New)³ Conference, a joint conference of the Association of Mathematics Teachers of NEW York, the Association of Mathematics Teachers of NEW Jersey, and the Association of Teachers of Mathematics in NEW England, Iona College, June 2016.
- Kobrin, J. & **Panorkou N.** (2015). Insight Learning System. Invited virtual presentation given at the SUDDS Lunch and Learn seminar series, College of Education, North Carolina State University, October 2015.
- Panorkou, N.,** Greenstein S. & Krupa, E. (2015). Meaningful Technologies for Mathematical Thinking. Presentation given at the conference Interdisciplinary Mathematical Thinking in the Post-bac World, Montclair State University, April 2015.
- Panorkou, N.** (2014). Using learning trajectories for organizing the instructional core around CCSS-M. Presentation given at the Association of Mathematics Teachers of New Jersey (AMTNJ) conference, New Brunswick, October 2014.
- Panorkou, N.** (2013). Triggering the development of foundational mathematical reasoning in elementary schooling. Seminar at Montclair State University, 18th February 2013.
- Confrey J, Nguyen K., Lee K., **Panorkou, N.** Corley A., Maloney A. (2012) “Turn on Common Core Math: Unpacking the Learning Trajectories for Teachers”, research seminar at the Brown Bag seminar Series, Friday Institute for Educational Innovation, North Carolina university, 15th February 2012.
- Panorkou, N.** (2011) “Students experiences of dimension: A phenomenographic study”, research seminar at the Brown Bag Seminar Series, Friday Institute for Educational Innovation, North Carolina University, 14th September 2011.
- Panorkou, N.** (2011) “Designing windows for researching students’ experiences of dimension”, research seminar at the Mathematics Education Special Interest group, Institute of Education, University of London, 16th June 2011.
- Panorkou, N.** (2011) “A phenomenographic study of students' experiences of dimension”, research seminar at the Midlands Mathematics Education Seminars, University of Nottingham 10th May 2011.

Panorkou, N. (2011) "Using Google SketchUp for researching students' experiences of dimension", research seminar at the Mathematics Education Special Interest group, Institute of Education, University of London, 27th January 2011.

CONFERENCES

Panorkou, N., York, T., Germia, E., & Kim, Youngjun (2022). Examining Students' Progression of Variational, Covariational, and Multivariational Reasoning. Presentation to be given at the 2022 American Educational Research Association (AERA) Annual Meeting, April 2022.

Germia, E. & **Panorkou, N.** (2022). Students' Reasoning About Dynamic Angles. Presentation to be given at the 2022 American Educational Research Association (AERA) Annual Meeting, April 2022.

York, T., Germia, E., Kim, Y., & **Panorkou, N.** (2021). Students' reorganizations of variational, covariational, and multivariational reasoning. Online presentation given at the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Philadelphia, PA, October 2021.

Panorkou, N. (2021). Dynamic Measurement for Area and Volume. Online presentation given at the 14th International Congress on Mathematical Education (ICME), July 2021.

Germia, E. & **Panorkou, N.** (2021) Integrating covariational reasoning in the learning of science: the case of gravity. Online presentation given at the 14th International Congress on Mathematical Education (ICME), July 2021.

Basu, D. & **Panorkou, N.** (2021) Task design features for integrating covariational reasoning with science. Online presentation given at the 14th International Congress on Mathematical Education (ICME), July 2021.

York, T., Germia, E. & **Panorkou, N.** (2021). Integrating the STEM Disciplines Through Debugging. Online presentation given at the Annual conference of the American Educational Research Association (AERA), April 2021.

Panorkou, N. & Germia, E. F. (2020). Examining students' reasoning of multiple quantities. Presentation given at the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Mexico. (Conference postponed to June 2021)

Panorkou, N. & York, T. (2020). Designing for an integrated STEM+C experience. Presentation given at the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Mexico. (Conference postponed to June 2021)

Basu, D. & **Panorkou, N.** (2020). Utilizing mathematics to examine sea level rise as an environmental and a social issue. Presentation given at the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Mexico. (Conference postponed to June 2021)

Samanthula, B. K., Mehran, M., Zhu, M. M., **Panorkou, N.**, & Lal, P. (2020). Experiences toward an interactive cloud-based learning system for STEM education. Presentation given at the 10th IEEE Integrated STEM Education Conference (ISEC).

- Panorkou, N.** & Germia, E. (2020). Examining students' quantitative reasoning in virtual ecosystem simulation of the water cycle. Online presentation given at the 14th International Conference of the Learning Sciences (ICLS), Nashville, June 2020.
- Germia, E. & **Panorkou N.** (2020). Integrating covariational reasoning into the learning of gravity. Online presentation given at the Annual conference of the American Educational Research Association (AERA), San Francisco, April 2020.
- Basu, D. & **Panorkou N.** (2020). Examining students' covariational reasoning and their understanding of the greenhouse effect through dynamic mathematical activities. Online presentation given at the Annual conference of the American Educational Research Association (AERA), San Francisco, April 2020.
- Basu, D. & **Panorkou N.** (2020). Fight climate change with mathematics! Annual conference of the National Council of Teachers of Mathematics, Chicago, April 2020 (Conference canceled).
- Germia, E. & **Panorkou N.** (2020). Integrating mathematics and coding into the learning of shadows. Annual conference of the National Council of Teachers of Mathematics, Chicago, April 2020 (Conference canceled).
- Basu, D. & **Panorkou N.** (2020). Examining the role of covariational reasoning in developing students' understanding of the greenhouse effect. Presentation given at the eighth International Conference to Review Research in Science, Technology and Mathematics Education (epiSTEME 8), January 2020.
- Germia, E. & **Panorkou N.** (2020). Exploring Angles in a Programming Environment. Presentation given at the eighth International Conference to Review Research in Science, Technology and Mathematics Education (epiSTEME 8), January 2020.
- Panorkou, N.** (2019). Examining Dynamic Measurement Reasoning for Area and Volume. Presentation given at the 41st annual conference of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA), St. Louis, Missouri, November 2019.
- Panorkou, N.** (2019). Exploring Dynamic Measurement for Volume. In M. Graven, H. Venkat, A. Essien & P. Vale (Eds.). *Presentation given at the 43rd Conference of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp 177-184). Pretoria, South Africa: PME, July 2019.
- Panorkou, N.** (2019). Exploring Volume Measurement Dynamically. Presentation given at the Research conference of the National Council of Teachers of Mathematics, San Diego, California, April 2019.
- Panorkou, N.** & Basu, D. (2019). Exploring Gravity through Mathematics. Presentation given at the Research conference of the National Council of Teachers of Mathematics, San Diego, California, April 2019.

- Basu, D. & **Panorkou, N.** (2019). Greenhouse effect: An Issue of Social Justice through Mathematical Lens. Presentation given at the Research conference of the National Council of Teachers of Mathematics, San Diego, California, April 2019.
- Germia, E. & **Panorkou, N.** (2019). Exploring coordinates using coding. Presentation given at the the Research conference of the National Council of Teachers of Mathematics, San Diego, California, April 2019.
- Germia, E. & **Panorkou, N.** (2019). Trending Mathematics with Coding. Presentation given at the Annual conference of the National Council of Teachers of Mathematics, San Diego, California, April 2019.
- Vishnubhotla, M. & **Panorkou, N.** (2019). Explore the Distinction between Quadratic and Exponential Growth Using Dynamic Tasks. Presentation given at the Annual conference of the National Council of Teachers of Mathematics, San Diego, California, April 2019.
- Panorkou, N.** (2019). Exploring Dynamic Measurement for Volume. Presentation given at the Annual conference of the American Educational Research Association (AERA), Toronto Canada, April 2019.
- Basu, D. & **Panorkou, N.** (2019). Examining the social aspects of the Greenhouse effect through mathematics. Presentation given at the Annual conference of the American Educational Research Association (AERA), Toronto Canada, April 2019.
- Basu, D., **Panorkou, N.**, & Zhu, M. (2019). Examining the social aspect of climate change through mathematics. Paper presented at the IEEE Integrated STEM education Conference (ISEC) 2019, Princeton, NJ.
- Zhu, M., Gulati, S. & **Panorkou, N.** (2019). Simulation design and development for learning seasons and lunar phases using HTML5 and JavaScript. Paper presented at the IEEE Integrated STEM education Conference (ISEC) 2019, Princeton, NJ.
- Basu, D. & **Panorkou, N.** (2019). Developing students' consciousness about Greenhouse Effect through dynamic mathematical activities. Presentation given at the Joint Mathematics Meetings, Baltimore, MD, January 2019.
- Panorkou, N.**, Basu, D. & Vishnubhotla, M. (2018) Investigating volume as base times height through dynamic task design. Paper presented at the North American Chapter of the International Group for the Psychology of Mathematics Education (PMENA), Greenville, South Carolina, November 2018.
- Basu, D. & **Panorkou, N.** (2018) Expanding students' contextual neighborhoods of measurement through dynamic measurement. Paper presented at the North American Chapter of the International Group for the Psychology of Mathematics Education (PMENA), Greenville, South Carolina, November 2018.
- Basu, D., & **Panorkou, N.** (2018) Examining the Social Aspects of Greenhouse Effect through Mathematical Modeling. Poster presented at the North American Chapter of the International Group for the Psychology of Mathematics Education (PMENA), Greenville, South Carolina, November 2018.

- Zhu, M., **Panorkou, N.**, Etikyala, S., Basu, D., Street-Conaway, T., Iranah, P., Mazol, D., Hannum, C., Marshall, R., Lal, P. & Samanthula, B. (2018). Steerable Environmental Simulations for Exploratory Learning. Presentation given at the *E-Learn: World Conference on E-Learning*, Las Vegas, NV, United States.
- Panorkou, N.** (2018). Rethinking the teaching and learning of Area Measurement. Presentation given at the 13th International Conference of the Learning Sciences (ICLS), London U.K., June 2018.
- Panorkou, N.** & Vishnubhotla M. (2018). Using Dynamic Design to Illustrate the Multiplicative Relationship of Area. Presentation given at the National Council of Teachers of Mathematics 2018 Research Conference, Washington D.C., April 2018.
- Basu, D. & **Panorkou, N.** (2018). Evaluating the impact of Dynamic Measurement on students' thinking of area. Presentation given at the National Council of Teachers of Mathematics 2018 Research Conference, Washington D.C., April 2018.
- Panorkou, N.**, Greenstein, S. and Sevetko, J. (2018). Designing for Student and Teacher Agency in a Sandbox-style Video Gaming Environment. Presentation given at the Annual conference of the American Educational Research Association (AERA), New York City NY, April 2018.
- Zhu, M., **Panorkou, N.**, Lal, P., Etikyala, S., Germia E.F., Iranha, P., Samanthula, B. K., Basu, D. (2018). Integrating Interactive Computer Simulation into K-12 Earth and Environmental Science. Presentation given at the IEEE Integrated STEM Education Conference, Princeton, NJ.
- Roeder, M. & **Panorkou, N.** (2017) Climb Aboard with Scratch Programming: An Engaging Way to Learn Coordinates. Presentation given at the 2017 NCTM Chicago Regional Conference, Chicago, Illinois, November 2017.
- Roeder, M. & **Panorkou, N.** (2017) Climb Aboard with Scratch Programming: An Engaging Way to Learn Coordinates. Presentation given at the 2017 NCTM Orlando Regional Conference, Orlando, Florida, October 2017.
- Panorkou, N.** (2017) Dynamic Measurement: The crossroad of area and multiplication. Presentation given at the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Indianapolis, IN, October 2017.
- Vishnubhotla M. & **Panorkou, N.** (2017) A Learning Trajectory for Visualizing Area as a Dynamic Continuous Quantity. Presentation given at the National Council of Teachers of Mathematics 2017 Research Conference, San Antonio, Texas, April 2017.
- Basu D., Vishnubhotla M. & **Panorkou, N.** (2017) Visualizing the area formula dynamically: Why length times width? Presentation given at the NCTM National Annual Meeting & Exposition, San Antonio, Texas, April 2017.
- Panorkou, N.** & Vishnubhotla M. (2017). Counting Square Units Is Not Enough: Exploring Area Dynamically. Presentation given at the 44th Annual Meeting of the Research Council on Mathematics Learning, Fort Worth, Texas, March 2017.

- Seventko, J., **Panorkou, N.** and Greenstein, S. (2017). Balancing Teachers' Goals and Students' Play in a Sandbox-Style Game Environment. Presentation given at the 44th Annual Meeting of the Research Council on Mathematics Learning, Fort Worth, Texas, March 2017.
- Panorkou, N.**, Vishnubhotla M. & Basu D. (2016) Making sense of length times width through Dynamic Task Design. Presentation given at the Annual conference of the Association of Mathematics Teachers of New Jersey, December 2016.
- Panorkou, N.** (2016). Developing students' thinking of dynamic measurement. Poster presented at the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Tucson, AZ, November 2016.
- Greenstein, S., **Panorkou, N.** & Seventko, J. (2016). Optimizing Teacher and Student Agency in Minecraft-Mediated Mathematical Activity. Paper presented at the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Tucson, AZ, November 2016.
- Panorkou, N.**, Vishnubhotla M. & Basu D. (2016) Developing students' thinking of dynamic measurement. Presentation given at the NCTM 2016 Regional Conference & Exposition: Philadelphia, Pennsylvania, October 2016.
- Panorkou, N.** & Kobrin J. (2016). Enhancing teachers' formative assessment practices: Using learning trajectories in professional development. Paper presented at the 13th International Congress on Mathematical Education (ICME), Hamburg, Germany, July 2016.
- Panorkou, N.** & Leszczynski E. (2016). Designing a clinical interview experience for pre-service elementary teachers. Presentation given at the Tenth Annual Conference of the New Jersey Association of Mathematics Teacher Educators, Trenton, NJ, June 2016.
- Kobrin, J. & **Panorkou, N.** (2016). Designing Professional Development to support teachers in learning trajectory-based instruction. Paper presented at the Annual research conference of the National Council of the Teachers of Mathematics (NCTM), San Francisco, April 2016.
- Panorkou, N.** & Kobrin, J. (2016). Designing Professional Development around Learning Trajectory-based instruction. Paper presented at the Annual conference of the American Educational Research Association (AERA), Washington DC, April 2016), April 2016.
- Kobrin, J. & **Panorkou, N.** (2016). Learning Trajectories in Professional Development: Enhancing Teachers' Formative Assessment Practices. Paper presented at the Annual Conference of the Association of Mathematics Teacher Educators (AMTE), January 2016.
- Panorkou, N.** & Greenstein, S. (2015). A Learning Trajectory for Transformation-based Reasoning in Geometry. Poster presented at the 16th Biennial EARLI conference for Research on Learning and Instruction, August 2015.
- Petrou, M. & **Panorkou, N.** (2015). Using the Knowledge Quartet as a tool for introducing the mathematics teaching practices. Paper presented at the 16th Biennial EARLI conference for Research on Learning and Instruction, August 2015.

- Kobrin, J. & **Panorkou, N.** (2015). Using a Mathematics Learning Trajectory to Enhance Teaching Practices Through Formative Assessment. Presentation given at the New Jersey Association of Mathematics Teacher Educators Ninth Annual Conference, May 2015.
- Panorkou, N.** & Greenstein, S. (2015). A Learning Trajectory for Transformation-based Reasoning in Geometry. Paper presented at the Research Council for Mathematics Learning Conference, Las Vegas, February 2015.
- Scioscia, P. & **Panorkou, N.** (2014) Using NJVid in Teacher Education. Paper presented at the NJEDge Annual Conference, Plainsboro NJ, November 2014.
- Panorkou, N.** (2014). Using learning trajectories for organizing the instructional core around CCSS-M. Paper presented at the Association of Mathematics Teachers of New Jersey (AMTNJ) conference, New Brunswick, October 2014.
- Panorkou, N.**, Maloney A., Confrey J. & Platt, D. (2014). Developing elementary students' reasoning of geometric transformations through dynamic animation. Paper presented at the International conference on Constructionism, Austria, August 2014.
- Panorkou, N.** & Platt, D. (2014). Facilitating the teaching and learning of geometric transformations through motion animation. Paper presented at the Emerging Learning Design conference, Montclair State University, May 2014.
- Panorkou, N.** (2014). Covariation and Correspondence relationships in elementary schooling. Paper presented at the Research Conference of the National Council of the teachers of Mathematics (NCTM), New Orleans, April 2014.
- Maloney, A. & **Panorkou, N.** (2014) Learning trajectories as a Framework for Inservice Teacher Professional Development Courses. Paper presented at the Annual Conference of the Association of Mathematics Teacher Educators (AMTE), Irvine CA, February 2014.
- Panorkou, N.** & Maloney, A. P. (2014). Chopsticks, Lobsters, and Roadrunners: How Are They Related? Paper presented at the Annual meeting of the National Council of the teachers of Mathematics (NCTM), New Orleans, April 2014.
- Confrey, J. & **Panorkou, N.** (2014). Fair-sharing: Many Times More than Meets the Eye! Paper presented at the Annual meeting of the National Council of the teachers of Mathematics (NCTM), New Orleans, April 2014.
- Panorkou N.**, Maloney A. and Confrey J. (2013). A Learning Trajectory for Early Equations and Expressions for the Common Core Standards. Paper presented at the Annual Conference of the North American Chapter of the International group for the Psychology of Mathematics Education, Chicago, November 2013.
- Panorkou, N.** (2013). Developing elementary students' understanding of functional relationships. Paper presented at the Annual Conference of the Association of Mathematics Teachers in New Jersey, East Windsor, October 2013.
- Lee K., **Panorkou N.**, Confrey J, Corley A., Nguyen K. H., Maloney, A. (2013) *Supporting students' early development of multiplicative structures*, interactive paper session presented at the Annual conference of the National Council of Teachers of Mathematics

(NCTM), April 2013.

Confrey J. Maloney A., **Panorkou N.**, Lee K., Corley A., McGowan W. and Avineri T. (2013) *Using learning trajectories to interpret the Common Core Math Standards*, discussion session presented at the Annual conference of the National Council of Teachers of Mathematics (NCTM), April 2013.

Panorkou N. and Confrey J. (2012) *Unpacking Shapes and Angles in CCSS-M*, session presented at the Annual conference of the North Carolina Council of teachers of Mathematics (NCCTM), Oct 2012.

Confrey J., Maloney A., Nguyen K. H., Corley A., **Panorkou N.** and Lee, K. (2012) *Interactive Diagnostic Assessments for Rational Number Reasoning: LPPSync*, work session presented at the Annual conference of the National Council of Teachers of Mathematics (NCTM), April 2012.

Panorkou, N. (2011) *A phenomenographic study on students' experiences of dimension*, paper presented at the International Symposium Elementary Mathematics Teaching, August 2011.

Panorkou, N. and Pratt, D. (2011) *Using Google SketchUp to research children's experience of dimension*, paper presented at the 35th Conference of the International Group for the Psychology of Mathematics Education, July 2011.

Panorkou, N. (2011) *Designing windows for researching children's experiences of dimension*, paper presented at the International conference of technology in mathematics teaching, July 2011.

Panorkou, N. (2009) *Changes of thinking about dimension*, paper presented at the BERA Annual conference, University of Manchester, September 2009.

Panorkou, N. (2009) *Thinking about dimension*, seminar given at the PME conference, Aristotle University of Thessaloniki, July 2009.

Panorkou, N. and Pratt, D. (2009) *Mapping experience of dimension*, seminar given at the PME conference, Aristotle University of Thessaloniki, July 2009.

Panorkou, N. (2009) *Mapping experience of dimension: Characterising dimensional thinking*, seminar given at the BSRLM Day Conference, University of Cambridge, February 2009.

Panorkou, N. (2007) *Embracing two-dimensional and three-dimensional geometry*, seminar given at the Institute of Education Doctoral School Conference, June 2007.

Attendance to the summit "*Adaptive educational technologies*" *Organiser*: National Academy of Education. Washington DC, 1-2 December 2011.

Attendance to the Sixth Conference of European Research in Mathematics Education. *Organiser*: ERME. Lyon, France 28 January – 1 February 2009.

AWARDS – HONORS

National Academy of Education/Spencer Postdoctoral Fellowship, 2017

Summer Grant Proposal Development Award, Montclair State University, 2017

Career Development Internal Award, Montclair State University, 2015

STaR Fellow status awarded by The Association of Mathematics Teacher Educators (<http://starfellows.com/>), 2014

Doctoral Faculty status awarded by Montclair State University, 2014-2018, 2018-2022

Fulbright Commission scholarship – Visiting fellow scholar, 2011-2012

Associate of the Higher Education Academy status awarded by the Higher Education Academy in the United Kingdom, 2011

Erasmus award as an exchange scholar at the University of Joensuu in Finland – funded by the European Union, 2002

PROFESSIONAL MEMBERSHIPS

- National Council of Teachers of Mathematics (NCTM)
- National Association of Mathematics Teacher Educators (AMTE)
- International Group for the Psychology of Mathematics Education (PME)
- North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA)
- International Society of the Learning Sciences (ICLS)
- European Association for Research in Learning and Instruction (EARLI)
- American Educational Research Association (AERA)
- Association of Mathematics Teachers of New Jersey (AMTNJ)
- Association of Mathematics Teachers of New York (AMTNY)
- New Jersey Association of Mathematics Teacher Educators (NJAMTE)
- International Commission on Mathematical Instruction (ICMI)

OTHER TRAINING

- Makerbot (3D printing) training, Montclair State University, October 2015.
- STaR program, Association of Mathematics Teacher Educators, June 2014.
- New Faculty program, Montclair State University, Fall 2013.
- Seminar on “Writing successful grants”, Montclair State University, October 2013.

- Training on “Using Canvas in teaching”, Montclair State University, September 2013.
- CITI Training Qualification, Montclair State University, August 2013 & September 2016.
- Workshop on “Giving effective feedback”, Training and Organizational Development, North Carolina State University, August 2013.
- RCR 101: Foundations in Responsible Conduct of Research, North Carolina State University, March 2012.
- Associate of Higher education (Qualification for teaching in higher education) - Facilitating Learning in Higher Education (Diploma), January - June 2010.
- Seminar on “Child protection policy”, Cyprus Educational Mission, Ministry of Education and Culture, September 2009.
- Attendance to the training seminar with topic “Promethean Interactive Whiteboard training”, November 2007.

SERVICE

Mathematics Education community:

Four-year college representative at the board of the New Jersey Association of Mathematics Teacher Educators (NJAMTE), 2016 – present.

Member-at-large North region at the board of the Association of Mathematics Teachers in New Jersey (AMTNJ), 2016 – present.

Review panel member reviewing grant proposals for the Discovery Research PreK-12 program of the Division of Research on Learning in Formal and Informal Settings of National Science Foundation, Spring 2019.

Reviewer of papers for the journals: *Cognition and Instruction*, *Journal for Research in Mathematics Education*, *Mathematical Thinking and Learning*, *Journal of Mathematical Behavior*, *Mathematics Teacher Educator*, *Digital Experiences in Mathematics Education*, *British Journal of Educational Technology*, *Teaching Children Mathematics*, *NCSM Journal of Mathematics Education Leadership*, and *Journal of Teacher Education*.

Reviewer of papers for the 2019 Research Conference of the National Council of the teachers of Mathematics (NCTM), Fall 2018.

Graduate student mentor to doctoral students at the 2018 Conference of the Psychology of Mathematics Education - North American Chapter (PME-NA 40), Fall 2018.

Reviewer for papers for the 2017 Conference of the Psychology of Mathematics Education - North American Chapter (PME-NA 39), Spring 2017.

Reviewer of papers for the 2017 Research Conference of the National Council of the teachers of Mathematics (NCTM), Fall 2016.

Reviewer for papers for the 2016 Conference of the Psychology of Mathematics Education - North American Chapter (PME-NA 38), Spring 2016.

Reviewer of papers for the 13th International Congress on Mathematical Education (ICME), Fall 2015.

Reviewer for papers for the 2015 Conference of the Psychology of Mathematics Education - North American Chapter (PME-NA 37), Spring 2015.

Senior Reviewer for JURE, a section of the 16th Biennial EARLI conference for Research on Learning and Instruction, Spring 2015.

Expert Reviewer for the 2015 Research Conference of the National Council of the teachers of Mathematics (NCTM), Fall 2014.

Reviewer of papers for the 2015 Annual Conference of the Association of Mathematics Teacher Educators (AMTE), Fall 2014.

Reviewer of papers for the 2014 Research Conference of the National Council of the teachers of Mathematics (NCTM), Fall 2013.

Reviewer of papers for the 35th Annual Conference of the North American Chapter of the International group for the Psychology of Mathematics Education, Spring 2013.

Local organizer at the British Society into the Learning of Mathematics Conference (BSRLM), Institute of Education, University of London, March 2011.

Reviewer of papers for the 7th Congress of the European Society for Research in Mathematics Education, Fall 2010.

Montclair State University:

At-large officer at the University Senate of Montclair State University (2016-Present).

Member of the Academic Affairs Committee of the University Senate of Montclair State University (2021 - Present).

Member of the Student Affairs Committee of the University Senate of Montclair State University (2016 - 2021).

Member of the Elections Committee of the University Senate of Montclair State University (2016 - present).

Member of the College of Mathematics and Science Curriculum committee, 2016 – Present.

Member of the Department Steering committee, 2020 – Present.

Member of the Department PAC, 2019 - 2020.

Member of the Graduate committee of the department of Mathematical Sciences, 2016-Present.

Member of the Assessment committee of the department of Mathematical Sciences, 2015-Present.

Coordinator for MTHM 201 and MTHM 302 courses at Montclair State University, 2014 - Present.

Member of the Communications committee of the department of Mathematics, 2014 – present.

Member of the Search committee for the mathematics education positions we wish to fill at Montclair State University, 2013 – 2015, 2017 – 2018.

Member of the Library and Comprehensive Exam committees at Montclair State University, 2013 – 2014.

Lead Advisor in the Hellenic Student Organization at Montclair State University, Fall 2014 - Present.