

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Patti J. Dieck

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Co-Director, Foundational Math Projects Group, National Laboratory for Education Transformation

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
CW Post, Long Island University, Greenvale, NY	BS	05/1987	Elementary Education
St. John's University, Queens, NY	MS	01/1989	Literacy/Reading Ed
Hofstra University, Hempstead, NY	EdD	2020 (anticipated)	Learning and Teaching (Specialization in Elementary Mathematics)

A. Personal Statement

I am a classroom teacher with 25 years' experience teaching elementary mathematics with a dual emphasis on conceptual understanding and procedural knowledge. My role as a philosopher-practitioner has led to working outside of my classroom in the capacity of curriculum writer, professional developer, and researcher. In 2013 I joined the writing team for EngageNY, working specifically on the Grade 4 Math Modules. My work on this project focused on the overall topic progressions, sequencing of lessons, and creation of assessments within each module, including the descriptive narratives written for teachers. Following the publication of the EngageNY curriculum (Eureka Math nationwide) I began a consulting company in order to meet the need for professional development that arose in the wake of the implementation of the Common Core State Standards for Mathematics. It was through my consulting work that the need to assist parents in helping their children became evident, resulting in the six-book series *Thinking Math Differently* that I co-authored and published in 2016. In order to keep my classroom and curriculum work in line with current research, I am currently pursuing my EdD in Learning and Teaching with a specialization in Elementary Mathematics at Hofstra University, in NY (anticipated 2020). Additionally, I became a senior staff member at the National Laboratory for Education Transformation (NLET) in 2017. My current position is co-director of the Foundational Math Projects Group.

- Grade 4 Mathematics. Retrieved from <https://www.engageny.org/resource/grade-4-mathematics>
- Great Minds. (2015). Eureka math: a story of units, grade 4. Wiley.
- Dieck, P. J., & Sarlo, C. M. (2016). *Thinking math differently: An essential guide for parents and teachers*. United States: Conceptual Learning Associates.

B. Positions and Honors

Positions and Employment

2000-	Classroom Teacher, Amityville UFSD, Amityville, NY
2009-2013	Adjunct Graduate Course Instructor, Teacher Education Institute/College of St. Rose, Winter Park, FL
2012-2013	Common Core Math Exemplar Lesson Writer/Editor, Suffolk's Edge Teacher Center, Wheatley Heights, NY
2012-2013	Common Core Math Implementation Developer/Facilitator, Western Suffolk BOCES, Wheatley Heights, NY
2013-2014	Mathematics Curriculum Writer (EngageNY Curriculum), Great Minds, Inc., Washington, DC
2013-	President/Lead Consultant, Conceptual Learning Associates, Inc., Amityville, NY
2016	Mathematics Assessment Item Writer, Questar Assessment, Apple Valley, MN
2017-2019	Mathematics Assessment Content Editor, The Achievement Network, Boston, MA
2018-	Co-Director, Foundational Math Projects Group, NLET, Carmel, CA

Other Experience and Professional Memberships

2003-2008	Member, Leadership Team, Math-Science-Technology-Partnership grant program, Amityville Public Schools, Amityville, NY
2009-	Cooperating Teacher, Student Teachers and Student Observer/Participants, Hofstra University, Hempstead, NY
2012-	Member, National Council of Teachers of Mathematics
2014-2018	Member, Past-President, Learning and Teaching Doctoral Society, Hofstra University, Hempstead, NY

C. Contributions to Science

1. Creation of common core elementary math curriculum for grade 4

I worked with a team of exemplary teachers, mathematicians, and curriculum experts to create the grade 4 New York State common core mathematics curriculum, the EngageNY Grade 4 Mathematics Modules (a.k.a. Eureka Math). Written following the adoption of the common core mathematics standards, this curriculum focuses on conceptual understanding rather than simple memorization, covering fewer topics at each grade level but going much deeper into each one. My work on this project was centered on the progression of understanding underlying each topic and included the creation of assessments, the sequencing of lessons, and the drafting of narratives to explain the sequence and expected student understandings needed for success. Teaching understanding looks and feels very different from teaching memorization, and these narratives were written to serve as a bridge for teachers from the way they learned math to the way they are now expected to teach it. The EngageNY Math Modules/Eureka Math is currently the most widely used curriculum in the country.

- a. Grade 4 Mathematics. Retrieved from <https://www.engageny.org/resource/grade-4-mathematics>
- b. Great Minds. (2015). Eureka math: a story of units, grade 4. Wiley.

2. Writing and publication of common core mathematics guidebooks for parents and teachers

I co-authored a series of six guides for parents and teachers of children in kindergarten through grade 5. The focus of mathematics learning in the common core learning standards is on the efficient and effective solving of real-world problems, rather than simply getting right answers. The teaching of algorithms and “what to do” is secondary to teaching what each algorithm means and why it works. This way of learning is in stark contrast to the way most of today’s adults learned math, creating a disconnect for parents and teachers. *Thinking Math Differently* introduces every learning standard at each grade level, explains it in

everyday language, and provides multiple examples of what children's assignments and thinking might look like. Also discussed at length are the many models students are first introduced to in Kindergarten, that grow with them and provide scaffolding for new concepts to be built upon. These books provide guidance for parents and teachers irrespective of the curriculum in use. They are currently in use in school districts as a professional development tool by university professors as preservice teacher mathematics methods textbooks and by student teaching supervisors to support field experience.

- c. Dieck, P. J., & Sarlo, C. M. (2016). *Thinking math differently: an essential guide for second grade parents and teachers*. United States: Conceptual Learning Associates.
- d. Dieck, P. J., & Sarlo, C. M. (2016). *Thinking math differently: an essential guide for third grade parents and teachers*. United States: Conceptual Learning Associates.
- e. Dieck, P. J., & Sarlo, C. M. (2016). *Thinking math differently: an essential guide for fourth grade parents and teachers*. United States: Conceptual Learning Associates.
- f. Dieck, P. J., & Sarlo, C. M. (2016). *Thinking math differently: an essential guide for fifth grade parents and teachers*. United States: Conceptual Learning Associates.

3. National mathematics educator conference presentations

In an effort to further understanding and practical application of the newly adopted elementary math standards, I led or co-led various presentations at Regional and National NCTM conferences as well as annual conferences for the NY City Math Project. These workshops involved breakout sessions where teacher participants engaged in practical problem-solving demonstrations, having the opportunity to use the strategies and information provided in preparation for sharing it with their students. The various workshops encompassed information for grades K through 12, and the progression of mathematical understandings were the underpinnings of all learning.

- a. Conference Session: *Making MODEL Students: Using Models for Problem Solving*, National Council of Teachers of Mathematics Annual Meeting and Expo, Boston, MA, April 2015
- b. Conference Session: *Decontextualizing and Contextualizing: Important Keys to Problem Solving*, National Council of Teachers of Mathematics Regional Conference, Hartford, CT, November 2012

4. Local mathematics educator conference presentations

- a. Conference Sessions: *ELL Success Strategies for the General Education Math Classroom*, and *Elementary Math Progressions for ENL/Bilingual Teachers*, New York City Math Project Annual Conference, Lehman College, Bronx, NY, March 2017
- b. Conference Sessions: *Progression by Regression: Finding HS Foundational Skills in Elementary Standards and Curricula* and *Read-It, Write-It, Picture-It: The Only Problem-Solving Strategy Students Need*, New York City Math Project Annual Conference, Lehman College, Bronx, NY, March 2016
- c. Conference Sessions: *Making MODEL Students: Using Models for Problem-Solving* and *Fractions Without Fear: The Grades 3-5 Common Core Fractions Progression*, New York City Math Project Annual Conference, Lehman College, Bronx, NY, March 2015
- d. Conference Sessions: *Key Words No More: The Real Keys to Problem-Solving* and *The Best Way to Teach Algorithms...Exactly Backwards!*, New York City Math Project Annual Conference, Lehman College, Bronx, NY, March 2014

D. Additional Information: Research Support and/or Scholastic Performance

Pending Grants

IES Thompson (PI) 07/01/20-06/30/24 Using the Common Core Math Analysis Platform (CCMAP) to Track Changes in Third Graders' Metacognitive Monitoring and Control: CPI; 13% CY effort

Ongoing Research Support

No current research support.