

# The Journal of Mathematics and Science:

COLLABORATIVE EXPLORATIONS

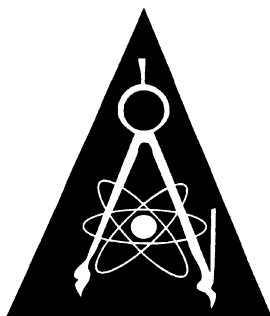
Volume 3, Number 1 Spring 2000

## PART I: SPECIAL ISSUE

### The New York Collaborative for Excellence in Teacher Preparation (NYCETP)

Focusing on the Power of Collaboration

## PART II: REGULAR JOURNAL FEATURES



Virginia Mathematics and Science Coalition



**The Journal of Mathematics and Science:**  
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**SPECIAL ISSUE**

**The New York Collaborative for Excellence  
in Teacher Preparation**

**Coordinating Editor  
for this Special Issue**

Barbara C. Freeouf  
NYCETP City-Wide Coordinator



## *Coordinating Editor's Note*

The New York Collaborative for Excellence in Teacher Preparation (NYCETP) is a 5-year project funded by the National Science Foundation (DUE #9453606). It is a partnership of five colleges of the City University of New York (Brooklyn, City, Hunter, Lehman, and Staten Island) and New York University. The central purpose of our Collaborative is to improve the preparation of elementary and secondary teachers of science and mathematics. To this end, we have been engaged in six interrelated clusters of activities, including:

- developing new approaches to teaching and assessing science and mathematics in college courses;
- providing new training opportunities including the design of new courses for prospective teachers at all levels;
- developing new training materials, with special emphasis on the design of curriculum units which reflect collaboration among faculty of varied disciplines and K-12 teachers, and reflect our urban context;
- providing student support and career development, including follow-up of first year teachers and internships in settings such as college tutoring, K-12 classrooms, and local science museums;
- recruiting promising students into teaching;
- developing exemplary field sites for student teachers.

NYCETP provides a model for how teacher preparation programs can support school change. Lasting effects of our Collaborative have resulted from the formation of a cohort of university faculty from many disciplines with a commitment to teacher preparation, and the creation of new links between college faculty and K-12 teachers, as well as links between science-rich institutions and educators at all levels. Of particular importance to the success of NYCETP has been the collaboration and cooperation between education and liberal arts faculty, and among the various science and mathematics faculties.

The NYCETP Vision and Philosophy of Mathematics and Science Teacher Preparation has guided the development and implementation of all Collaborative activities. In this publication more than a dozen project participants provide insights into selected activities. This selection of our collective work demonstrates the ways in which NYCETP participants are using strategies advocated by reformers, including inquiry-based learning, cooperative learning, alternative assessments, to achieve the project's goal to change the quality of science and mathematics teaching and learning in our schools. The chart below offers a summary of the articles in this special issue:

<i>Author</i>	<i>Pg. #</i>	<i>Inquiry-Based Learning</i>	<i>Coop. Learning</i>	<i>Alternative Assessment</i>	<i>Urban Context</i>	<i>Constructivism</i>	<i>Std. Based Curricula</i>	<i>Intg. of Tech</i>
Lazarus	1	X	X	X		X		X
Adler	9		X					
Sobel	15	X						
Fraser-Abder	29	X	X		X	X		
Espinoza	35	X		X	X		X	X
Miele	41	X	X		X	X	X	X
Murfin on projects	47	X	X			X	X	X
Stone	55	X	X	X				X
Ring	65		X	X	X		X	
Welchman	75			X			X	
Goldberg	83	X	X	X	X	X		X
Murfin (sci. fair)	91			X	X	X	X	X
Jordan	99	On teaching scholars and recruitment						
Tittle et al	107	On using case studies for changing curricula						

By focusing on the “Power of Collaborations,” our intention in this issue was to seed more professional interactions among colleagues and to inspire others to also take up our cause to continually seek excellence in teaching mathematics and science at all levels. At the same time, however, we recognize that collaborative work is never easy. As with all worth-while endeavors, collaborations are fraught with challenges. In the end, their power lies in the processes shared, the products produced, and the connections made on many levels - - personal, professional, curricular, and institutional.

NYCETP is pleased to present a sampling of such processes, products and connections. Our hope is that the work described here will invite professional discourse beyond our own institutions, as we collectively continue to find better and better ways to prepare excellent teachers and become excellent teachers ourselves. We are grateful to the editorial board of the Journal for their willingness to devote a special issue to the work of the NYCETP project. Professors Raychowdhury and Haver, Karen Murphy and other excellent staffers made the entire process particularly smooth and simple.

Finally, other publications that chronicle the development of NYCETP courses and related activities will be available for dissemination during the 2000-2001. If the reader is interested in receiving detailed information about any of the activities mentioned here or elsewhere, we invite you to contact the Collaborative office, the campus coordinators, or the authors in this publication.

Barbara C. Freeouf,  
Coordinating Editor

**Project Office: NYCETP**  
Brooklyn College  
School of Education, 2608 James  
2900 Bedford Avenue  
Brooklyn, New York 11210  
TEL (718) 951-3113 FAX (718) 951-3115  
EMAIL: cetp@brooklyn.cuny.edu

Websites: <http://deptftp.brooklyn.cuny.edu/education/nycept/index.htm>  
OR <http://www.sciedunet.org>

.....

**JAMES BRUNI, Lehman College Co-P.I.**

OFFICE (718) 960-8401  
FAX (718) 960-7855  
E-MAIL [bruni@alpha.lehman.cuny.edu](mailto:bruni@alpha.lehman.cuny.edu)  
ADDRESS Lehman College  
Dean of Education

**BARRY CHERKAS , Hunter College Co-P.I.**

OFFICE (212) 772-5741  
FAX (212) 772-4858  
E-MAIL [bmchc@cunyvm.cuny.edu](mailto:bmchc@cunyvm.cuny.edu)  
ADDRESS Hunter College  
Mathematics/Statistics Dept.

**LEONARD CIACCIO, College of Staten Island Co-P.I.**

OFFICE (718) 982-2325  
FAX (718) 982-2327  
MAIL [ciaccio@postbox.csi.cuny.edu](mailto:ciaccio@postbox.csi.cuny.edu)  
ADDRESS College of Staten Island  
Biology Department

**BARBARA C. FREEOUF, City-Wide Coordinator**

OFFICE (718) 951-4719  
FAX (718) 951-3115  
EMAIL [bcfreeouf@aol.com](mailto:bcfreeouf@aol.com)  
ADDRESS Brooklyn College  
NYCETP Office

**FRANK GARDELLA, Hunter College Co-P.I.**

OFFICE (212) 772-4676  
FAX (212) 772-4698  
E-MAIL fgardell@shiva.hunter.cuny.edu  
ADDRESS Hunter College  
Curriculum & Teaching

**KENNETH GOLDBERG, NYU Campus Coordinator**

OFFICE (212) 998-5213  
FAX (212) 995-4198  
E-MAIL goldbrgk@is2.nyu.edu  
ADDRESS New York University  
School of Education  
Dept. Of Teaching & Learning

**NEVILLE KALLENBACH, NYU Co-P.I.**

OFFICE (212) 998-8757  
FAX (212) 260-7905  
E-MAIL kallnbch@is.nyu.edu  
ADDRESS New York University  
Chemistry Department

**MARC S. LAZARUS, Lehman College Campus Coordinator**

OFFICE (718) 960-8843  
FAX (718) 960-8750  
E-MAIL mlazarus@alpha.lehman.cuny.edu  
ADDRESS Lehman College  
Chemistry Department

**JAMES NEUJAHN, City College Co-P.I.**

OFFICE (212) 650-6269  
FAX (212) 650-6268  
E-MAIL jlncc@cunyvm.cuny.edu  
ADDRESS City College  
School of Education

**ROCHELLE RING, City College Campus Coordinator**

OFFICE (212) 650-5126  
FAX (212) 862-0004  
E-Mail ring@sci.ccny.cuny.edu  
ADDRESS City College - Mathematics Department



**JAMES SANDERS, College of Staten Island Campus Coordinator**

OFFICE (718) 982-3738  
FAX (718) 982-2327  
E-MAIL sanders@postbox.csi.cuny.edu  
ADDRESS College of Staten Island  
Education Department

**MICHAEL SOBEL, Brooklyn College Campus Coordinator**

OFFICE (718) 951-5806  
FAX (718) 951-4407  
E-MAIL msobel@brooklyn.cuny.edu  
ADDRESS Brooklyn College  
Physics Department

**DACOTA STEWART-DICK, Project Coordinator**

OFFICE (718) 951-3113  
FAX (718) 951-3115  
E-MAIL dacota@brooklyn.cuny.edu  
ADDRESS Brooklyn College  
NYCETP Office – 2608J

**STANLEY F. TABACK, Lehman College Campus Coordinator**

OFFICE (718) 960-8358  
FAX (718) 960-7855  
E-MAIL taback@alpha.lehman.cuny.edu  
ADDRESS Lehman College  
Division of Education

**CAROL KEHR TITTLE, Project Evaluator**

OFFICE (212) 817-8288  
E-MAIL ctittle@email.gc.cuny.edu  
ADDRESS Graduate Center, CUNY  
Educational Psychology Dept.

**ROSAMOND WELCHMAN, P.I. and Project Coordinator**

OFFICE (718) 951-3113  
FAX (718) 951-3115  
E-MAIL welchman@brooklyn.cuny.edu  
ADDRESS Brooklyn College  
School of Education



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