

Supplemental Instruction in Corequisite Mathematics Courses: Results and Challenges at an Urban Community College

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LaGuardia Community College is a two-year college in Queens, New York serving a diverse student body. Since 1993, the Academic Peer Instruction Program (API), modelled after an internationally known peer tutoring program, Supplemental Instruction (SI), has aimed to increase passing rates in high-risk courses by providing peer tutoring to our students. Nationwide, between 40 and 60% of incoming students place in remedial or developmental mathematics, English, or both. In order to accelerate completion, corequisite mathematics courses have been designed and scaled to reduce the time students spent in noncredit courses. In this article, we present data collected in corequisite mathematics courses that show improved passing rates and grades, higher accumulation of credits, and higher graduation rates for students who attend sessions. We also detail how the SI model was modified to address the challenges of those courses. Implications for program administrators are discussed.

Keywords: supplemental instruction, peer tutoring, developmental mathematics, corequisite mathematics courses, completion rates, graduation rates



Reem Jaafar is a professor in the Mathematics, Engineering and Computer Science Department. A physicist by training, she is passionate about STEM teaching and learning. She believes that students' mentoring is essential to their success, and many of her activities have been guided by this principle: She cofounded the mathematics society, mentored undergraduate students, and finally became the Co-Director of the Academic Peer Instruction (API) program at LaGuardia in 2014. She has overseen the expansion of the program to include developmental and corequisite mathematics courses. She has collaborated with the office of Institutional Research & Assessment to detail the program's outcomes in terms of pass rates, and degree completion. Within the framework of Supplemental Instruction, she has collaborated with other divisions. Jaafar has served on the College's Senate since 2015 and became the chair of the committee of faculty in 2016. In 2018–2019, she chaired the Steering Committee on the Strategic plan, engaging all divisions of the college in identifying high-level goals and priorities needed to plan future efforts. Jaafar has collaborated with faculty from various disciplines and has authored peer-reviewed publications in the fields of physics, higher education, and mathematics pedagogy.

Angela M. Cornelius is an associate professor of education in the Department of Education and Language Acquisition at LaGuardia Community College, the City University of New York, where she teaches courses in Foundations of Education, Language and Literacy, and arts-based integrated curriculum and pedagogy. She received her PhD in Curriculum and Instruction from Texas A&M University, where she focused on interdisciplinary curriculum development within literacy and arts education. Her research interests include interconnected and



interdisciplinary foci: (a) teacher education and instructional practice; (b) visual and cultural literacy; (c) art education; and (d) social justice as curriculum. Cornelius has presented at many conferences, published as an author and coauthor in academic journals, and has a book chapter. She is a reviewer of journal articles (e.g., *Urban Education*). She holds a BFA in communication design and an MEd in elementary education from Texas State University.



Joyce Ship Zaritsky holds an MAT from Harvard University and an EdD from Yeshiva University. She is now a professor emeritus at LaGuardia Community College. She pioneered the supplemental instruction (Academic Peer Instruction) program at the college in the spring of 1993 starting with a pilot of three courses, serving as its director until her retirement in 2013. At present, she serves as a senior advisor to the program, concentrating on its tutor training.

Joseph Evering works in the Education and Language Acquisition Department at LaGuardia Community College, CUNY. He is the Director of the Reading Lab and the Administrative Coordinator of the Academic Peer Instruction Program. He has mentored API leaders and program assistants and collaborated with faculty coordinators in improving all aspects of the program.



Anastacia Pal is pursuing a Master's of International Affairs at Baruch College's Austin W. Marxe School of Public and International Affairs. She earned a BA in political science from Queens College. As an assistant coordinator for Academic Peer Instruction at LaGuardia Community College, she has taken on a leadership role that has helped her understand the needs of the diverse population of students.