CCNMTL Awarded $2.3 Million from NSF to Develop New Teaching Resource Supporting Early Childhood Mathematics

New York, June 7, 2004. The National Science Foundation (NSF) awarded $2.3 million to a consortium led by Columbia Center for New Media Teaching and Learning (CCNMTL) to develop Video Interactions for Teaching and Learning (VITAL): A Learning Environment for Courses in Early Mathematics Education. This new resource will give prospective early childhood mathematics teachers new tools to improve their understanding of children’s mathematical thinking. The consortium also includes Teachers College and William Patterson University.

Frank Moretti, principal investigator and Executive Director at CCNMTL, and Herbert Ginsburg, the Jacob H. Schiff Professor of Psychology and Education at Teachers College, will lead teams that will develop a curriculum, a digital library of primary source material that includes video cases, expert and scholarly commentary, and an online community workspace.

Studies show that children employ mathematical ideas and methods developed prior to the onset of formal education. By analyzing videos of clinical interviews and classroom interactions, pre-service teachers gain a better understanding of how children employ these mathematical ideas with the anticipation that this will improve teacher performance. “At a time when there is less support for supervision and mentoring of teachers in the schools themselves, universities have a greater responsibility to insure that abstract theory and training in practical judgment are both part of a teacher’s preparation,” explained Frank Moretti. “VITAL merges the two in a unique online environment, so that teachers of early childhood mathematics not only learn what is known in the field but also develop the skill to recognize the creative mathematical intelligence all children have as their natural endowment.”

A prototype of VITAL, developed by CCNMTL during the 2002-2003 academic year, is presently being used in Dr. Ginsburg’s classes. He has been working with video to supplement his teaching since the late 1960s and the VITAL prototype allowed Ginsburg to include interactive video lessons in classroom instruction more efficiently. The grant will allow for the creation of an enhanced VITAL that will be tested at Columbia University and William Paterson University. It will then be tested at six sites serving diverse pre-service teacher populations: Boston University, Georgia State University, Howard University, Kean University,
Rutgers University-Newark, and San Diego University. By the end of the grant period, May 2009, the resource will be ready for distribution to teacher-education programs nationwide.

“This is an exciting and groundbreaking new program that will revolutionize the way children are taught mathematics,” added James Neal, Vice President for Information Services and University Librarian at Columbia. “We are grateful to the NSF for supporting a program that will have a powerful impact on teachers and learners.”

About CCNMTL

CCNMTL (Columbia Center for New Media Teaching and Learning) is a service of Columbia University whose mission is to enhance teaching and learning through the purposeful use of technology and new media. CCNMTL forms partnerships with faculty, providing them with as much support as they need in everything from the construction of course Web sites to the development of advanced projects. CCNMTL is committed to remaining a leader in its field, engaging with its faculty partners in the reinvention of education for the digital age. CCNMTL is part of Columbia’s Information Services Division.