

# Archived Information

**Education Development Center, Inc.**  
**Goal Area:** Building a Research Base/Science

**Organizational Accomplishments:** Through dozens of projects and publications, EDC contributes original research findings to practitioners and the education research community. Our research initiatives range from targeted field tests and pilot studies of promising practices to long-term evaluations of national school reform programs. EDC researchers contribute to the research base through presentations at national conferences, journal articles, and books.

**Purpose:** EDC works at the intersections of research and practice. We seek to develop, identify, and disseminate effective approaches to preK-12 scientific education for all students. Our research projects help to build a better understanding of student learning, teacher learning and practice, and the critical role of administrators. We also study the wider contexts that influence science learning, including school and district structures, state and federal policies, and the relationships among schools and communities.

**Activities and Results:**

- *Researching the Sustainability of Reform:* Researchers at EDC and the California Institute of Technology are focusing on sustainability of reform—maintaining the gains of an educational change process and continuing reform over time—by studying nine communities with hands-on science education programs begun between 5 and 30 years ago.
- *Science Education and Rural Settings:* This exploratory research project focuses on increasing rural districts' access to, and engagement in, science education improvement efforts. This research is a first step in informing the communication, designs, and implementation of science reform efforts so that they aptly address rural districts' contexts and needs. This study will focus on the National Science Foundation's Rural Systemic Initiative.
- *Bridging Research and Practice in the MSPs:* This project is developing a technical assistance model for supporting projects in NSF's Mathematics and Science Partnership (MSP) program. The technical assistance will enhance MSP's abilities to use research and evaluation data to address barriers to change and achieve its program goals.
- *Developing Methods to Determine How Research-Based Science Curricula Are Used in High School Classrooms:* EDC has developed research methodologies to analyze how high school teachers use reform-based curricula. Interview and observation instruments and protocols created through this project can determine the intended and actual use of curriculum materials.
- *Has Inquiry Made a Difference? A Synthesis of Research on the Impact of Inquiry Science on Student Outcomes:* In this project, EDC staff synthesizes research, undertaken since 1984, that compares the impact of inquiry science on student outcomes to the impact of other instructional approaches. A range of studies will be included: quantitative and qualitative research, formal experimental models, and purposeful information gathering by districts.
- *JASON Multimedia Science Curriculum Multi-Year Evaluation:* EDC is conducting a five-year longitudinal study of the impact of the JASON Multimedia Science Curriculum on teachers and students.
- *Middle School Science Curriculum Materials: Meeting Standards and Fostering Inquiry Through Learning Technologies:* The University of Michigan is developing middle school science curriculum materials that are aligned with national standards, focus on inquiry as the principal instructional strategy, and embed new learning technologies to support the inquiry process.
- *Prime Plus Evaluation:* EDC is evaluating the Pittsburgh Public Schools' Local Systemic Change and Urban Systemic Programs in K-12 science. The evaluation is (1) formative, shaping work that goes on with teachers, among teacher leaders, and with administrators and (2) summative, looking at the impact of the work on teaching, learning, and district policies.
- *Promoting Assets and Access: Reframing the Standards to Include All Students:* This project promotes high-quality science education for K–4 students with disabilities by developing and testing curriculum activities to demonstrate how students with disabilities can be included in standards-based education.
- *Gender Equity in Math and Science (GEMS):* This national research project is examining the design, interactions, and impact of online professional development for teachers. The research draws on surveys, interviews, site visits, and discourse analysis to determine what factors create successful online professional development for a wide range of learners.

**Plans for next 12 months:** All of these activities are ongoing. See [www.edc.org](http://www.edc.org) for details.