CADRE Legacy

For more than fifteen years, the *Community for Advancing Discovery Research in Education* (CADRE) served as the connective hub for NSF's Discovery Research PreK–12 (DRK–12) program—linking people, projects, and ideas to advance STEM education research. CADRE convened, curated, and mobilized knowledge so that insights generated through NSF investments could influence practice in classrooms and professional-development settings and inform future research.

CADRE was launched to support NSF's growing DRK–12 portfolio of projects and help transform a set of individual awards into a functioning learning community. From the beginning, CADRE operated on three durable principles:

1. Connect—bring researchers, developers, educators, and funders into dialogue with one another.
2. Curate—make important and supportive information easy to find and use.
3. Catalyze—spark collaboration, reflection, and continuous improvement.

As the DRK–12 program and community evolved, CADRE adapted with them to keep the community engaged and visible while aligning with changing priorities, needs, and interests.

Through meetings, webinars, working groups, and web-based platforms, CADRE built a shared infrastructure that helped the DRK–12 community collaborate, learn, and innovate. Its websites (cadrek12.org and successfulstemeducation.org), newsletters, and social media channels sustained an accessible, evolving record of DRK–12 activity. Its programs and resources strengthened project management, mentoring, and proposal development, and its early-career supports cultivated a pipeline of future leaders.

As CADRE concludes, it leaves a lasting archive, a connected network of researchers and practitioners, and practical lessons for sustaining a lightweight connector-amplifier model that continues to accelerate learning across the STEM education ecosystem.

CORE CONTRIBUTIONS

Building and Sustaining Community: CADRE organized in-person and virtual convenings (e.g., national PI meetings, regional STEM Smart conferences, and smaller topical working groups) where researchers and practitioners shared findings, co-designed approaches, and built partnerships. These events and related communications linked thousands of investigators, program officers, and school-system partners, helping to solidify DRK–12 as a community of inquiry rather than merely a portfolio of disparate grants.

Mobilizing Knowledge: CADRE-led, cross-portfolio topical spotlights, sessions, working groups, reports, and syntheses facilitated knowledge sharing across projects to support and advance the field in areas of significant investment and interest among STEM education

stakeholders. CADRE also created DRK–12 project webpages to highlight each grant's team, work, and products. CADRE's communications ecosystem—websites (CADREK12.org and successfulstemeducation.org), newsletters (CADRE, STEM Smart, and STEM Education Research), and social media channels, as well as webinars, blogs, and video series—made the cross-portfolio and individual project information and products, as well as other DRK–12 news and outputs, discoverable and accessible, contributing to the field's working library used by faculty, project teams, and district partners.

Strengthening Project Implementation: CADRE provided services and resources for awardees, including a new-awardee orientation, guidance in project development and management, and forums for awardees to share their experiences. Research and implementation tools, such as compendia of research instruments and templates and strategies for recruiting and retaining participants, helped projects translate research plans into action. Project-management support through nuts-and-bolts webinars, external-review guidance, a dissemination toolkit, and tips for preparing NSF reports reflected CADRE's philosophy of enabling efficiency and effectiveness without adding burden.

Developing People and Capacity: Professional learning was embedded throughout CADRE's work. Early-career researchers participated in CADRE Fellows cohorts, proposal-writing workshops, and peer-mentoring networks. Mid- and senior-level researchers shared their approaches to perennial STEM education and research issues and served as mentors and reviewers. Video blogs on proposal development; webinars and sessions on project design, methods, dissemination; and conference sessions on sustaining and scaling research reached hundreds of participants annually.

EVIDENCE OF REACH

CADRE's influence can be traced across platforms and institutions, for example:

- **CADREK12.org** drew sustained traffic of over a million viewers and downloads of resources such as *Using Video in Education Research* (2023).
- **STEM Smart newsletters** broadcasted STEM education research and practice news and resources to more than fifteen thousand education stakeholders across sectors.
- **Repositories**, such as ERIC, extended access to CADRE publications like *Generative AI in STEM Teaching* (2025).
- **YouTube videos,** such as *The Importance of Early Math Education* (31K+ views) and *What Is Scientific Modeling?* (21K+ views), reached audiences far beyond NSF circles. Video resources for researchers, such as *Case Study Design Research* (2023) and *Uncovering the Hidden Curriculum of DRK–12: Post Panel Pop-off* (2022), served prospective and current research awardees.
- **Social-media networks** enabled CADRE to quickly spread news and information to thousands of followers in a timely and efficient manner.
- **Universities, STEM education research organizations, and STEM education professional associations** routinely amplified CADRE content, promoting Fellows

announcements, proposal toolkits, webinar recordings, and CADRE resources through their own channels.

- **Synchronous virtual and in-person events** brought together thousands of researchers and education stakeholders across sectors, disciplines and focal areas, geographic regions, and career stages.

CADRE messages and materials circulated well beyond their immediate community to inform new proposals and professional development.

ENDURING IMPACT

CADRE demonstrated that a small, adaptive resource center can amplify the reach of an entire federal research program. CADRE built a culture of collaboration and shared learning that supported DRK–12 projects in communications, partnering, and mentoring. Its most significant legacy is not a single product, but a community accustomed to sharing what it learns—a network equipped to keep advancing discovery research in education long after the resource center concludes.

As CADRE sunsets, its website and resource archive will remain publicly available, capturing materials that illustrate the community's evolution and contributions. Alumni networks, especially the Fellows community, will continue informally through listservs and social platforms. Future NSF resource centers can draw on CADRE's resources for onboarding, convening, and synthesizing.