NSF-suggested Funding Opportunities

Cyberlearning: Transforming Education NSF 10-620
http://www.nsf.gov/pubs/2010/nsf10620/nsf10620.pdf

Letter of Intent: May 14, 2011 – *required for INDP only*

Full proposal deadline: January 17, 2012

24 to 34 awards $30M total in FYs 2011 and 2012 - contingent on availability of funds. 14-18 Exploratory (EXPs), 7-12 Design & Implementation (DIPs), 2-4 Integration and Deployment Project (INDPs). *"It is expected that another solicitation during FY2012 will request additional research proposals and Resource Network proposals."*

EXP: explore proof-of-concept or feasibility. 2-3 years, up to $550,000

DIP: research in everyday environments in which people spend time/lives. Formative analyses: focus on usability of the tech, effects on learning/engagement, effective ways to integrate. 4-5 year period, $1,350,000 total.

INDP: also carried out in everyday environments, build on prior research that showed promise, advance understanding of how to more broadly or productively use tech or how to integrate several innovations, deployment. May: 1) advance understanding of how to integrate established tech; provide guidelines on extending usage of promising tech or address learning needs of a populations; provide guidelines on extending usage of tech over wider variety of learning contexts, or advance understanding of processes, constraints, affordances of different environments for learning. May combine advances in two or more of these areas. Up to 5 years and up to $2,500,000 total.

Program Officers: Janet Kolodner (CISE); Gregg Solomon (EHR); Brett Pelham (SBE); Joan Peckham (OCI)

Goals:

- Better understand how people learn with tech and how tech an be used to help people learn, individually or collaboratively, via tech-mediation
- *Better use tech for collecting, analyzing, sharing, and managing data to shed light on learning, promoting learning, and designing learning environments*
- Design new tech for these purposes, advance understanding of how to use; and integrate them into learning environments

"...Every project should therefore seek to answer questions about how to better promote learning, how to promote better learning, or how learning happens in technology-rich environments (including exploring relationships between people and technology that result in productive learning and access provided with technology to learning resources, such as data and scientific information). Each project should also focus, concurrently, on innovative technology design, ways of coherently integrating technologies for learning, and/or the integration of such technology into targeted learning environments. *Especially sought are projects in which technology allows the tailoring of learning experiences to special needs and interests of groups or individuals, as well as ways in which technology allows expanding education beyond*

classroom settings (emphasis added). Proposed research and innovations should be grounded in theories of and the literatures on learning and education.

Research should be situated in one or more of the real-world contexts in which people can learn (including formal or informal environments, traditional and non-traditional environments for learning, and individual and collaborative learning settings).

Projects should take into account both theoretical and practical issues, focusing on new directions while, at the same time, taking into account a future in which research outcomes inform implementations on broader and larger scales. It is expected that all projects will advance understanding about how people learn with technology, how to use technology to help people learn, and/or how to use technology to enhance assessment or education practices.

A significant amount of effort in all projects will also go into design and implementation of technological innovations that will be iteratively refined over the course of the project based on systematic analysis of formative data.

Projects should make clear the learning domain to be explored (e.g., content, subject matter, topics, skills, practices) and make a research-based case for the promise of the particular technological innovation for promoting learning in this domain. Data should be collected and analyzed to produce evidence of learning outcomes."

A successful research project should be potentially transformative; grounded in existing learning and education research; seek to answer questions about learning with technology; measure learning gains, take into account appropriate elements of the learning ecology in designing its innovation, evaluating its innovation, and answering research questions; include team members with all necessary expertise, including expertise for outreach and dissemination; be aware of potential scalability and sustainability issues; and use appropriate methodologies to evaluate innovations and measure learning gains. Our expectation is that many grants made by this program will seed long-term research enterprises. The transformative potential of proposed projects may be many years out, so proposers should make clear what that potential is and the predicted time horizon.

Project Description: Project Descriptions should include the following sections:

- Vision and Goals
- Research Plan and Outcomes
- Innovation Outcomes (For DIP and INDP projects ONLY)
- Collaboration Plan

Per new GPG, all proposals must also contain a Data Management Plan.

CYBERLEARNING RESOURCE NETWORK

The Cyberlearning program anticipates creating a future resource network that will provide assessment, technology transfer, dissemination, and evaluation aid to PIs. This resource network will help Cyberlearning PIs collaborate to synthesize findings across the Cyberlearning portfolio, will provide technical assistance to Cyberlearning projects, will help promote national awareness of research contributions from the Cyberlearning portfolio, and will help build the Cyberlearning community through PI and special interest meetings. All Cyberlearning projects will be required to share their proposals and findings with the resource network and other Cyberlearning PIs, to participate in annual PI meetings and synthesis, and to be responsive to requests for information from other Cyberlearning PIs and from the resource network.

Math & Science Partnership (MSP) - NSF 10-556

Status 2011 RFP – unknown

Prior due dates:

July 08, 2010 (Institute Partnerships, MSP-Start Partnerships, Phase II Partnerships, RETA projects)

October 14, 2010 (Targeted Partnerships)

The Math and Science Partnership (MSP) program is a major research and development effort that supports innovative partnerships to improve K-12 student achievement in mathematics and science. MSP projects are expected to raise the achievement levels of all students and significantly reduce achievement gaps in the mathematics and science performance of diverse student populations. In order to improve the mathematics and science achievement of the Nation's students, MSP projects contribute to what is known in mathematics and science education and serve as models that have a sufficiently strong evidence/research base to improve the mathematics and science education outcomes for all students. NSF's MSP program coordinates its effort with programs of the U.S. Department of Education in the expectation that effective innovations in mathematics and science education will be disseminated into wider practice.

Through this solicitation, NSF seeks to support five types of awards:
1. ***Targeted Partnerships*** focus on studying and solving teaching and learning issues within a specific grade range or at a critical juncture in education, and/or within a specific disciplinary focus in mathematics or the sciences;

2. ***Institute Partnerships - Teacher Institutes for the 21st Century*** focus on meeting national needs for teacher leaders/master teachers who have deep knowledge of disciplinary content for teaching and are fully prepared to be school- or district-based intellectual leaders in mathematics or the sciences;

3. ***MSP-Start Partnerships*** are for awardees new to the MSP program, especially from minority-serving institutions, community colleges and primarily undergraduate institutions, to support the necessary data analysis, project design, evaluation and team building activities needed to develop a full MSP Targeted or Institute Partnership;

4. ***Phase II Partnerships*** are for prior NSF MSP Partnership awardees to continue implementation on specific innovative areas of their work where evidence of the potential for significant positive impact is clearly documented. The intent is that there will be focused efforts to carry out the necessary research to advance knowledge and understanding in the specific area(s); and

5. ***Research, Evaluation and Technical Assistance (RETA)*** **projects** (a) study the relationships among MSP activities and student learning using theoretically informed, methodologically rigorous methods; (b) develop and validate instruments of teacher or student knowledge that MSPs and others can use to assess the impact of their work, or (c) provide technical assistance to MSP projects to help them rigorously evaluate their work.

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Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 17 to 27 for MSP projects, including 3-5 Targeted Partnerships, 3-5 Institute Partnerships, 5-7 MSP-Start Partnerships, 3-5 Phase II Partnerships and 3-5 RETA awards, pending availability of funds.

Anticipated Funding Amount: $42,000,000 in FY2011, pending availability of funds for the MSP program.

The MSP program seeks to improve K-12 student achievement through a sharp focus on three inter-related issues:

- Ensuring that all students have access to, are prepared for and are encouraged to participate and succeed in challenging and advanced mathematics and science courses;
- Enhancing the quality, quantity and diversity of the K-12 mathematics and science teacher workforce;
- Developing evidence-based outcomes that contribute to our understanding of how students effectively learn mathematics and science.

Key Features:

Partnership-Driven
Teacher Quality, Quantity, and Diversity
Challenging Courses and Curricula
Evidence-Based Design & Outcomes
Institutional Change and Sustainability