

Second Biennial Call for Pre-Proposals: Understanding Teacher Change and Teachers as Learners in K-12 Classrooms

Focus for the call: Teachers Learning to Facilitate Communication in the Classroom

Pre-proposal Deadline:	May 8, 2019 15:59 CDT (20:59 UTC)
Invitations to submit Full Proposal:	August 14, 2019
Contact for Questions:	Send an email to info@jsmf.org .

JSMF requests that prospective applicants review *all* the information provided in this call for pre-proposals carefully, including the topics, team members, and research approaches represented by the [inaugural cohort of funded projects](#), prior to preparing a pre-proposal application.

Overview

In 2017, the James S McDonnell Foundation (JSMF) inaugurated a program supporting use oriented research expanding our understanding of teachers as learners and as agents of change in education. The focus of the program's call for pre-proposals in 2017 and 2019 is on facilitating high quality communication in classrooms. The [2018 cohort of funded projects](#) can be viewed here.

In light of the intense efforts by both public and private sectors to improve the outcomes for all children in K-12 classrooms, there is an urgent need to know more about how teachers think, learn and adapt their work within the context of diverse, complex, ever-changing educational systems. Amid the calls for teachers to process, evaluate, and adopt “evidence-based” practices – little is known about *teachers as learners*.

There are ever growing lists of recommended evidence-based practices that teachers are encouraged to adopt, such as those identified in What Works Clearinghouse Practice Guides from the U.S. Department of Education (ies.ed.gov/ncee/wwc/) and the Core Practice Consortium (corepracticeconsortium.com). But there is limited research on how teachers view, interpret, or change as they seek to incorporate new practices into their existing professional practice. Even less is understood about the factors that

influence teachers to decide not to incorporate new knowledge into their practice. Understanding teachers as learners is a necessary, but largely overlooked, component of efforts to change education. Indeed, as a [recent book on the topic of bridging research and practice](#) asserts “there are too many guides and ‘cookbooks’ that indiscriminately propagate...dozens of techniques and strategies” without concern for how teachers understand, select, and take up these techniques (De Florio, 2016, p. 1) or generate their own changes in practice.

The JSMF Teachers as Learners (TAL) program focuses on teacher thinking and change in attitudes, knowledge, skills and behaviors. The current program reflects the principles of an earlier JSMF program, Cognitive Studies for Educational Practice (CSEP).

Second Biennial Call for Pre-Proposals

To contribute to filling an existing research and knowledge gap, the James S McDonnell Foundation (JSMF) is announcing its second call for pre-proposals for team-based research as described in detail below. Following review of pre-proposals a select set of teams will be invited to submit full proposals for funding consideration. Up to 6 projects could be selected for funding.

This second call for pre-proposals continues JSMF’s commitment to supporting projects taking a cognitive and developmental science approach to understanding teachers as learners in the context of the many influences on teacher change across career trajectories. A survey of the current landscape reveals that there is significant focus on small-scale experimental work on student cognition and on descriptive work on teaching – but the lack of a cognitive science framework for how teachers learn to process, evaluate, improve, and change their use of evidence based practices within a complex, dynamic system.

JSMF encourages pre-proposals for projects that have the capacity to bridge gaps in the topics represented in the currently funded projects or that complement the current projects by focusing on subject matter content or teacher and classroom populations that might be under-represented. Proposed projects should consider the ecological constraints of the educational context in order to address the lack of sustainability and/or retention of interventions and practice changes.

The desired outcomes from the projects supported through this JSMF funding initiative are twofold. First, it is expected that the research funded will lead to refined **theories of teachers as learners** that

include a deeper understanding of teacher “life-span” development in the context of knowledge and experience and the accumulated motivators and causes of systematic improvements in teachers’ instructional practices. These theories will consider how attitudes and knowledge shape teachers’ instructional practices and how attitude, knowledge and practices alter and improve over time. Second, it is anticipated that the cumulative knowledge acquired by the research will lead to **improvements in programs predicated on the factors contributing to teachers’ uptake and effective use of evidence-based educational practices in the context of their classrooms.**

Program Rationale and Goals

In 2016, JSMF convened and charged a [study panel](#) to assist JSMF in identifying programmatic opportunities in educational research that would build on its prior investment in research at the interface of cognitive science research and education practices, (see [Cognitive Studies in Educational Practice](#)) while addressing [contemporary challenges](#) to research-based educational reform.

The [study panel’s deliberations and analysis](#) led to the observation that systemic education reform efforts based on integrating evidence-based practices into classrooms will likely continue to encounter limited success unless such attempts were supported by a strong knowledge base built on a scientific understanding of how teachers acquire and use new knowledge, new curricula, and new approaches in their professional practices and in the context in which they teach. Although a substantial research effort has focused on understanding student learning there is not yet as concomitant a research effort dedicated to understanding teachers as learners.

To help advance a science of the understanding of teachers as learners, JSMF is supporting research at the interface of cognitive science and educational practice that, over the next decade, will elucidate actionable knowledge from the study of teacher change and teachers as learners across the trajectory of teaching careers. Although widely acknowledged that teachers are critical agents in the national efforts to improve students’ educational success, educational innovations aimed at improving student learning and performance rarely consider how teachers will learn to implement these new practices or determine whether or not new approaches should (or can) be incorporated into existing practices. Decades ago, cognitive scientists realized that effective educational interventions must be informed by scientific research on student learning and development. There is a need to apply this insight to teachers: To effect real and lasting change, educational interventions must be informed by scientific research on teaching and teachers as learners.

The JSMF program will focus on supporting research that builds from a cognitive science perspective on teachers as learners – including a focus on the aspects of cognition (e.g., memory, effort, prior knowledge, motivations, goals, expertise, collaboration and others) that guide teacher thinking and change in attitudes, knowledge, skills and the adoption of evidence-based practices in classroom contexts. In particular JSMF is interested in research that can be characterized **as useable, needs-driven education research that identifies malleable factors that influence the developmental changes occurring as teachers introduce evidence-based knowledge into their professional practice.** *Note: the program supports research on teachers as learners – the program does not support projects with the primary goal of testing interventions for teaching teachers.*

Guidelines for 2019 Pre-proposals: Topical focus: Teachers learning to facilitate communication in the classroom

All submissions to the JSMF program will be evaluated by an [expert advisory panel](#).

The 2nd biennial call for pre-proposals remains focused on supporting team-based research addressing the topic **teachers learning to facilitate communication in the classroom** (e.g., eliciting student explanations, guiding collaborative discussions, making effective use of questions).

The use of the term *communication* in this solicitation includes verbal, gestural, digital, and written modes of interaction and discourse. Improving communication, such as orchestrating whole class discussion and facilitating high-quality explanations, is universally identified as an evidence-based practice for improving classroom instruction that is not being supported sufficiently in classrooms (corepracticeconsortium.com/corepractice).

Research projects described in the pre-proposal must be rooted firmly in the learning context, operate in real-time, and accommodate the constraints imposed by the local environment. All pre-proposals must provide the following information:

- a brief but thorough description of the question or problem motivating the pre-proposal, and an explanation of the measures by which teacher learning and teacher change will be assessed,

- an explanation of the proposed approach including a [data acquisition/data management plan](#), (research projects acquiring new data or utilizing existing data are welcome; where feasible, teams are encouraged to utilize existing data sets),
 - a list of the metrics and measurements that are planned to be used by the team,
 - the identification and qualifications of the members of the interdisciplinary team, and
 - budget plan by year. (NB – The annual budgets should consider both ramp up and ramp down needs and need not request identical amounts for each year.)
-

Eligibility

[Qualified domestic or foreign institutions with 501\(c\)\(3\) tax-exempt status or domestic institutions that are instruments of the government](#) can submit a proposal on behalf of a multi-institutional team. The qualified institution will take responsibility for accepting the grant, signing the grant contract, negotiating all subcontracts, and managing the grant consistent with JSMF policies. Entities that do not meet the above requirements can participate in the research as part of the team carrying out the project but cannot serve as the lead institution.

Each team must identify a team member with an appointment at the lead institution who will serve as the project lead and be the principal point of contact with JSMF.

Pre-proposal and Proposal Preparation Process

Pre-proposals prepared according to the [specifications of this RFP](#) and submitted before the deadline will be reviewed by JSMF and by the *Teachers as Learners* advisory panel.

Following the advisory panel review of pre-proposals JSMF will issue a limited number of invitations to those teams with the most responsive pre-proposals to prepare and submit full proposals to JSMF for review and final funding consideration. The projects ultimately selected for funding through this JSMF program will demonstrate scholarly rigor and a substantial likelihood of effecting true educational impact.

JSMF will host annual workshops involving representatives from all teams funded through this initiative - participation in the annual workshops is a requirement of funding.

Timeline

Call for Pre-Proposals Announced	January 2019
Pre-proposal Deadline	May 8, 2019 15:59 CDT (20:59 UTC)
Invitations to submit Full Proposal	August 14, 2019
Final Proposal Deadline	October 4, 2019 15:59 CDT (20:59 UTC)
Advisory Board Meeting	October/November
Funding Decisions	January 2020
Grants Commence	February 2020

Selection Criteria

NOTE: Projects primarily proposing to develop or evaluate pre-service curricula or in-service teacher professional development programs are not responsive to this RFA.

To be successful the pre-proposal should address the bullets below:

- **FRAMEWORK:** Describe a theoretical framework for research citing the relevant primary literature from the cognitive sciences.
- **BENEFITS:** Articulate a clear need within the K-12 educational setting that has the potential for broadly shared benefits for society, especially for those historically underserved and those lacking ready access to rich educational resources.
- **TEAM:** Demonstrate that project teams have the skill sets and expertise necessary to carry out the work. Preference will be given to interdisciplinary teams with diverse methodological and theoretical expertise and skills (e.g., cognitive science, teacher education, assessment, etc.). *Teams must include teachers as fully integrated partners in the planning, execution, and dissemination of the research.*
- **PARTNERSHIPS:** Provide a plan for establishing strong, flexible working relationships with all participating teachers and with other key educational system personnel, districts, vendors, etc. Partnerships with under-resourced schools are encouraged.
- **OBJECTIVES:** Identify measurable and reportable annual performance objectives and milestones that provide a basis for making in-process course corrections and for evaluating project success.
- **MEASUREMENTS:** Specify a set of clearly defined outcome measurements specifically geared to teacher learning and teacher change that are meaningful to practitioners and administrators.
- **DISSEMINATION:** Develop a dissemination plan that specifies how the team will disseminate findings to the scholarly communities through publications, presentations and other activities.
- **USE:** Describe an explicit translational plan for how the research findings will move into educational practice. Doing so means demonstrating a realistic understanding of how evidence-based practices and principles are taken up by educational practitioners, students, parents, school administrators, or educational policymakers.
- **PRODUCTS:** Discuss how the products of the project will be determined. It is expected that teams will report on scholarly publications emanating from the research and appearing in and cited by both the cognitive science and educational research literatures, the presentations and activities that involve teachers and other education stakeholders, the degree to which teachers

and students directly participate in the research and directly benefit from it, and the ability of the research findings to influence policy documents, curricular standards, and practice.

Examples of the types of research questions suitable to the call for pre-proposals include but are not limited to:

- Where, when and in what contexts do teachers learn to be better teachers? For example, what are the typical ways teachers acquire new knowledge about recommended communication practices?
- What are teachers' beliefs about the role of classroom discussion (or other forms of communication) as a method to promote student learning and how does that influence their instructional practices?
- Can we identify specific transitions among teachers from novice to expert in the ways they identify, learn about, take up, and observe evidence-based communication practices? What are the hallmarks of the developmental trajectories of typical and/or atypical classroom teachers?
- What is the current role of technology in teacher learning, and what opportunities are available from new forms of innovation?
- How do teachers' beliefs about discussion in face-to-face classrooms influence (both positively and negatively) their practices for facilitating discussions in online classes?
- What are some of the malleable causal factors that lead to improvements in teachers' facilitation of communication in the classroom? How do these differ when teaching students from diverse backgrounds, different age groups of students, different content areas, and in different types of learning settings?
- How do teachers or Professional Learning Communities choose which communication method to utilize when faced with a number of different types of communication methods? How do they evaluate if that method was successful? What are the different metrics to use for the evaluation besides standardized test scores?

Frequently Asked Questions

Last updated January 29, 2019

I have an idea for a pre-proposal on education research. Is it appropriate for this program?

We usually don't advise potential applicants on the appropriateness of their research ideas or programs.

We prefer that you carefully read the posted program materials and the [white paper](#) before deciding whether or not to apply.

- The JSMF program will focus on supporting research on teachers as learners that builds from a cognitive science perspective – including a focus on the aspects of cognition (attention, working memory, motivation, reward) that guide teacher thinking and change in attitudes, knowledge, skills and the adoption of evidence-based practices in classroom contexts.
- JSMF is interested in research that can be characterized as *useable, needs-driven education research that identifies malleable factors that promote teachers learning to improve their use of evidence-based practice*.
- The inaugural call for pre-proposals is focused on supporting team based research addressing the topic *teachers learning to facilitate communication in the classroom* (e.g., eliciting student explanations, guiding collaborative discussions, making effective use of questions).
- It is expected that a typical pre-proposal team will be made up of individuals representing different expertise and skills (e.g. cognitive science, teacher education, classroom teaching, assessment, statisticians, etc.) from different institutions. It is important that the teams include classroom teachers as fully involved partners.
- Pre-proposals should articulate a clear need within the K-12 educational setting that has the potential for broadly shared benefits for society, especially for those historically underserved and those lacking ready access to rich educational resources.

What is considered an "interdisciplinary team"? Must pre-proposals cover more than one content area (e.g. math and reading)?

In the context of this RFP, interdisciplinary does not refer to content disciplines but to methodological and theoretical expertise and skills:

Preference will be given to interdisciplinary teams with diverse methodological and theoretical expertise and skills (e.g., cognitive science, teacher education, assessment, etc.). It is important that the teams include classroom teachers as partners.

I'm interested in participating in more than one team application.

We ask that you participate in only one team application during the pre-proposal stage.

How many Teachers as Learners grants will be funded in 2019?

It is anticipated up to 6 grants will be funded per grant cycle. After the 2019 competition, the next grant cycle will be held in 2021.

I've read that JSMF has an eligibility policy where researchers on unfunded proposals are ineligible to apply for another JSMF grant for 3 years. Does that policy apply to this program?

No. The "Once-Every-Three-Years" Eligibility policy does not apply to the Teachers as Learners program.

Do you fund internationally?

Entities that have a 501(c)(3) tax determination or domestic institutions that are instruments of the government can submit an application as the lead institution. Entities that do not have a US IRS 501(c)(3) tax determination and are not considered a domestic government instrumentality can participate in the research as part of team but cannot serve as the lead institution that will be responsible for accepting the grant and submitting required reporting. [Read more about JSMF tax policies](#)

Can a team be comprised of individuals with different expertise come from a single institution?

It is expected that a typical pre-proposal team will be made up of several different researchers representing different expertise and skills (e.g. cognitive science, teacher education, assessment, etc.) from different institutions. If all the required skills are co-located within your institution you can submit a pre-proposal. It is important that the teams include classroom teachers as partners.

Can a project lead be a teacher?

Yes.

Is there a limit on the number of applications that can be submitted from a single institution?

No.

Can we request less than the \$2.5M maximum?

Yes. The requested budget should reflect the needs of the project and can be less than the maximum.

Our planned budget requires more than \$500,000 a year for the first two years but lower amounts in years 3-5.

There is no requirement to spend the grant in equal annual disbursements. The proposed budget should reflect the project needs. The nature of the budget requests will be an important criterion for review and selection.

What are allowable budget items for the Teachers as Learners grants?

Faculty salary, support for teachers, support for post-doctoral scholars, full or part-time research staff, travel, equipment (such as video equipment, computers for data collection and analysis, software for video encoding, etc.), and publication fees are examples of allowable budget items for this grant type. [See the JSMF Allowable Budget Items document for more information.](#)

Our research plan includes obtaining and processing existing video recordings of classroom interactions. Is that an allowable budget item?

Yes. The expenses for processing already existing recordings is an allowable budget item.

Are references included in the word limits?

No (within reason).

When can I submit a completed pre-proposal?

Pre-proposals will be accepted beginning January 2019, up until the May 8, 2019, 15:59 CDT (20:59 UTC) deadline [at this link](#).

Do you accept late pre-proposals?

No. We recommend you submit your pre-proposal at least 24 hours in advance to avoid any unexpected problems. No extensions will be granted.

I have a question not answered here. Whom should I contact?

Send an email to info@jsmf.org.