

# Request for Proposals

*Research on Competency Education and  
Other Student-Centered Approaches to  
Learning*

October 2013



# I. Introduction

The goal of this grant opportunity is to provide new information and insights into the contexts, components, outcomes, and potential of student-centered learning approaches to education. That is, we are looking to understand the effectiveness of specific student-centered learning approaches, including the results for different populations of students, the supports that may be needed to ensure realization of positive outcomes, and the contextual conditions that are needed. In the long run, our intention is for this research base to influence education policy and public awareness, in addition to educational practice.

Researchers from grant-eligible research institutions are encouraged to apply for funding of two-year projects that provide insight into student-centered practices, while also measuring the effects of these practices on students, particularly those who are members of historically underserved subgroups.<sup>1</sup> Detailed requirements and criteria are described in Sections VI and VII, below. The deadline for receipt of proposals is 12:00 noon on October 30, 2013.

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<sup>1</sup> The Foundation typically considers students who are low income, Latino, African American, English Language Learners, or have multiple risk factors that have been identified as early indicators of school failure. We are especially interested in how student-centered approaches impact the attainment and achievement of students from historically underserved groups and communities. Other definitions may be applied in proposed studies.

## II. Background

The mission of the Nellie Mae Education Foundation is “to stimulate transformative change of public education systems across New England by growing a greater variety of higher quality educational opportunities that enable all learners—especially and essentially underserved learners—to obtain the skills, knowledge and supports necessary to become civically engaged, economically self-sufficient life-long learners.” The Foundation believes that student-centered learning approaches can improve our collective prospects for the future if they become a core facet of schooling. The Foundation’s strategic approach aims to serve as a catalyst for efforts to remodel the educational system in New England, equipping all of our learners with the skills they need for full participation in school, work, and life.

The Foundation has chosen to focus in this area because it believes that student-centered learning approaches<sup>2</sup> have the potential to both “raise the bar” for all students to obtain the skills and knowledge needed for success and “close the gap” between subgroups in achievement, resulting in higher rates of post-secondary readiness and attainment.

Some of the tenets of student-centered learning include: (1) *Learning is personalized*: Each student is known well by adults and peers in the learning environment. Students benefit from individually-paced learning tasks, tailored to start from where the student is, and to address individual needs and interests. At the same time, their learning is deepened and reinforced through participation in collaborative group work, focused on engaging and increasingly complex and authentic problems and projects; (2) *Learning is competency-based*: Students move ahead based primarily on demonstrating key learning milestones along the path to mastery of core competencies and bodies of knowledge (as defined in Deeper Learning), rather than on a student’s age or hours logged in the classroom; (3) *Learning takes place anytime, anywhere*: Time is fully utilized to optimize and extend student learning and to allow for educators to engage in reflection and planning. The school walls are permeable—benefitting from multiple community assets and digital resources; and (4) *Students act as the protagonists of their learning*. Students understand how to get “smarter” by applying effort strategically to learning tasks in the different domains. Students take increasing responsibility for their own learning, using strategies for self-regulation when necessary.

Student-centered learning moves the emphasis from the teaching side of the equation to the perspective of the learner. This shift, while not novel, is being discussed in a context of renewed urgency, as the U.S. falls behind other countries in educational achievement and attainment. Our national results both reflect and reinforce structural inequities by race, income, and ethnicity. At the same time, several bodies of research—including brain science (e.g. Hinton, Fischer, & Glennon, 2013; Immordino-Yang & Damasio, 2007; Lupien, McEwen, Gunnar, & Heim, 2009), research on motivation (e.g., Deci, Vallerand, Pelletier, & Ryan, 1991; Duckworth, Peterson, Matthews, & Kelly, 2007; Toshiaki & Nakkula, 2013; Yonezawa, Jones, & Joselowsky, 2009), and other “learning sciences” (e.g., Farrington, et al., 2012; Harter, 1992; National Research Council, 2012; Sawyer,

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<sup>2</sup> While not identical, such approaches overlap significantly with those often referenced as “deeper learning,” “next generation learning,” and “personalized learning.” See Appendix A.

2008; Steinberg, 2010; Tobias & Everson, 2009)—point to the importance of more personalized, meaningful educational approaches even as constantly evolving technological tools are creating increasing opportunities to scale up student-centered education for all students, especially those who have been underserved.

While there is growing evidence that student-centered learning develops both achievement as traditionally measured and important higher order “deeper learning” skills (K. L. Alexander, Entwisle, & Olson, 2007; P. Alexander & Murphy, 2000; Bransford, Brown, & Cocking, 2002; Darling-Hammond, 2010a; Downey, Von Hippel, & Broh, 2004; Durlak & Weissberg, 2007; Hake, 1998; Halpern, 2009; Hattie, 2009; Haystead, 2010; Johnston, 2011; Lambert & McCombs, 2000; McClure, Yonezawa, & Jones, 2010; Michael, 2006; Miller, 2007; National Academy of Education, 2009; National Research Council, 2012; Niemiec & Ryan, 2009; Peterson, Woessmann, Hanushek, & Lastra-Anadón, 2011; Resnick & Zurawsky, 2005; Shear, Novais, & Moorthy, 2010; Stern & Stearns, 2008; Sturgis & Patrick, 2010; Wolfe, Steinberg, & Hoffman, 2013), much remains to be learned.

One major endeavor along these lines is already underway: the *Students at the Center* ([www.studentsatthecenter.org](http://www.studentsatthecenter.org)) project, led by Jobs for the Future, has brought together the knowledge base located in a wide array of disciplines, from neuroscience to literacy education. To date, this effort to disseminate existing research has resulted in a collection of papers, tools for implementation, and a book ([Anytime. Anywhere](#)). In addition, NMEF supports a set of on-going research, evaluation, and policy research projects that aim to deepen the evidence and understanding of student-centered learning approaches as well as their effects.

This grant opportunity is designed to continue this important work by focusing on a subset of specific practices that are part of student-centered approaches. These practices are of special research interest to us for the following reasons:

1. They are believed to be “high leverage,” in the sense that many other changes in the learning environment, including learner roles, teacher practice, school structures, and district policies, typically “ripple out” in response to their implementation.
2. They are believed to have the potential to dramatically increase the college and career readiness of underserved students, while also resulting in deeper learning outcomes for all students.
3. They have the potential to be implemented on a system-wide basis, i.e., scaled up throughout a school district. Systemic reform should be possible, but does not have to occur.
4. They are currently being implemented across the New England region, but there is only limited research evidence to provide guidance for execution.

The Foundation has identified one such approach—competency education—as a competitive priority for this RFP. Research focusing on other student-centered practices will also be considered, based on a rationale that meets the four criteria listed above.

# III. Competency Education

Competency education<sup>3</sup> aims to re-engineer the education system so that students are progressing based on attainment of knowledge and skills rather than time spent sitting in a classroom. The following definition has guided NMEF's previous grantmaking in this area:

[Competency education] enables students to engage in learning experiences where they can demonstrate mastery of content and skill and earn credit toward a diploma, credential or other meaningful marker. The 'grain size' of these ...pathways can vary considerably from earning a high school diploma to mastering a particular subject (math) or course (Algebra 1). Adapted from "[Making Mastery Work](#)," by Priest, Rudenstine, and Weisstein, published by NMEF (2012).

In competency-based high schools, students receive credit based on demonstration of knowledge and skills (often organized into competencies based on key standards), proceeding to the next level when they are ready. This approach can be contrasted with a traditional classroom, wherein a large group of students may already know the content of the lesson being presented, while another group may not be able to understand it due to a lack of foundational skills. In this hypothetical classroom, only those students in the middle—those who don't yet know the content, but can understand the information—are actually learning. This concept has some common-sense appeal, which may explain the rapid pace of implementation of competency education across the New England region.

There is widespread acknowledgement that, even as competency education raises the expectations that all students can and will master key competencies and graduate ready for college or careers, the varied pacing of competency-based approaches means that those students who start high school further behind are likely to need extra time, potentially increasing gaps in the short run:

There is a tremendous risk in considering competency-based approaches as equivalent to credit flexibility. Simply unhooking credits from the Carnegie Unit could contribute to a new mechanism for institutionalizing low expectations. Our challenge is to design competency-based pathways so that they replace the time-based system with a set of practices that propel students toward mastery of college and career-ready skills.

*CompetencyWorks wiki: What is Competency-Based Learning?* Retrieved at <http://competencyworks.pbworks.com/w/page/66734498/Welcome%20to%20the%20CompetencyWorks%20Wiki>

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<sup>3</sup> In this relatively new area, there are currently a number of different terms being used, including competency education, competency-based education, proficiency-based pathways, mastery learning, and standards-based education. Furthermore, the definition of each term varies depending on the source. For the purposes of this RFP, all of these terms are acceptable and considered synonymous. Proficiency-based graduation policies, which have been enacted in some New England states, focus on demonstration of skills and knowledge, but do not always have the focus on pacing that is central to our definition of competency education.

As the field of competency education emerges, growing activity has resulted in a number of different approaches, frameworks, and definitions. Key design principles and/or supporting conditions are often detailed, and these components of the description can be very helpful in providing a richer picture of the approach. In some cases, the definitions combine both a description of competency education and suggestions about how to ensure that it is implemented in a high quality manner. While there are strengths to all the existing competency education definitions, the Foundation is open to variations in how researchers and practitioners think about this approach, as long as it includes the following:

1. Pacing (at some “grain size”) based on mastery, rather than seat time
2. Specific, intentional approaches to meet the varied needs of students, especially those starting at the lowest levels
3. Transparent systems for formative and summative assessment (for one discussion of what this might look like, see Darling-Hammond, 2010b)

The field of competency education is growing at a rapid pace—in just the past few years, 36 states have passed policies either allowing or requiring competency-based approaches in K-12 education. On the other hand, research to guide burgeoning policy and practice is still in a very rudimentary stage. A recent review of the literature by the Regional Educational Laboratory for the Northeast and Islands at Education Development Center found only a few studies on the topic (Scheopner-Torres, Brett, & Cox, forthcoming). Furthermore, with few exceptions (Haystead, 2010), the research is either descriptive in nature (Alliance for Excellent Education, 2013; Kirk & Accord, 2010; Priest, et al., 2012; Silvernail, Stump, Duina, & Gunn, 2013) or focused on another sector such as higher education or corporations (e.g., Jones, 2002).

In the face of growing implementation and policy, the research funding opportunity described in this RFP aims to begin to answer fundamental questions about whether and why competency-based education is effective. We hope to fill in some of the gaps in knowledge regarding issues such as the components of high quality implementation, interventions needed to create equitable outcomes, and the effects on various student populations. In addition, we know that the context at every level will influence these outcomes, and so will prioritize research that considers contextual factors.

All research projects that are supported by this funding opportunity should include analysis of the following domains: (1) competency education practices, (2) school and community context, and (3) student outcomes. Furthermore, all research projects are expected to include a significant proportion of underserved students and to conduct analyses focused on the experiences and results of competency education for student subgroups. Some of the questions raised by the existing literature regarding implementation of competency education include:

- How can competency education best be structured to reduce, and not expand, the current gaps in achievement or attainment between subgroups of students? How can students who begin high school behind their peers in skills and knowledge have learning experiences that accelerate their achievement and help them to graduate ready for post-secondary education? What “early warning systems” or other indicators can be put in place? How are these interventions and supports implemented and what effect do they have?
- What is required to develop clear, appropriate learning progressions in every content area? Are learning progressions appropriate for all areas of the curriculum, especially those that are not linear in nature?

- Given the greater emphasis on transparency and formative assessment in a competency education environment, what skills do teachers need and how do their roles change?
- Given the greater emphasis on student motivation and self-regulation in a competency education environment, how can these attributes be encouraged and developed?
- How can competencies best be assessed to ensure reliability and validity, given their central role in student pacing in a competency-based environment? How do educators know when a student is “proficient enough” to move on?

In addition, there is a need for a better understanding of how participation in competency education affects student outcomes, including:

- What are the short-term effects of competency education on student identity, peer and teacher relationships, sense of belonging, mindset, engagement, attendance, and motivation?
- What are the longer term outcomes in terms of performance, achievement, graduation, and college enrollment?
- Are students who have participated in competency education more prepared for college than their peers? Less prepared?
- Are students who have participated in competency education more likely to persist in college or other post-secondary institutions?
- In each case, how do these outcomes vary across subgroups of students (such as family income, race, ethnicity, English language proficiency, or community context)?

Please note that we do not expect that any single research project will respond to all or even most of these questions. Additionally, we are cognizant that long-term outcomes are likely beyond the scope of the funding period. They are offered to just provide some guidance into the types of questions that we believe might be included in proposed projects.

Discussions of competency education can be found in a number of documents, three of which are highlighted below. These references are not meant to be comprehensive, but may be of interest to the reader:

1. [CompetencyWorks](#), with support from NMEF and others, serves as a central resource for the field. It has created a series of Issue Briefs on a wide range of topics, hosts webinars and an active blog, and includes a wiki with dozens of school descriptions, rubrics, and other documents. A definition of competency education definition was developed by CompetencyWorks and adopted by the Council of Chief State School Officers (CCSSO).
2. The KnowledgeWorks Foundation recently published two [competency education briefs](#) focused on federal policy. Brief #1 also includes a definition of competency education developed by the Smarter Balanced Proficiency-Based Learning Task Force.
3. Digital Learning Now’s [“The Shifts from Cohort to Competency”](#) provides an overview of the rationale for competency education and design choices involved.

## IV. RFP Overview

This Request for Proposals describes the Foundation's interest in funding research projects and evaluations that provide deeper, more complex understanding of the outcomes of student-centered approaches to learning for secondary school students, especially those who have been traditionally underserved by our educational system. The NMEF's working definition of student-centered approaches includes a set of principles:

1. Student-centered education systems provide all students equal access to the skills and knowledge needed for college and career readiness in today's world.
2. Student-centered education systems align with current research on the learning process and motivation.
3. Student-centered education systems focus on mastery of skills and knowledge.
4. Student-centered education systems build students' identities through a positive culture with a foundation of strong relationships and high expectations.
5. Student-centered education systems empower and support parents, teachers, administrators, and other community members to encourage and guide learners through their educational journey.

The principles may be demonstrated in four key attributes of educational approaches: (1) Curriculum, instruction and assessment embrace the skills and knowledge needed for success in college and careers; (2) Community assets are harnessed to support and deepen learning experiences; (3) Time is used flexibly and includes learning opportunities outside the traditional school day and year; and (4) Mastery-based strategies are employed to allow for pacing based on proficiency in skills and knowledge (see Appendix A for more information).

As noted above, the primary goal of this grant opportunity is to provide information and insights into the contexts, components, outcomes, and potential of specific student-centered learning approaches to education. That is, we are looking to understand the effectiveness of student-centered learning practices, under what conditions, and for whom. In the long run, our intention is for this research base to influence education policy and public awareness, in addition to educational practice.

### *A. Description*

This RFP is soliciting grant proposals that focus on a subset of student-centered approaches, as described below. Several (3-5) two-year research projects that meet the stated criteria will be recommended for grants to the NMEF Board of Directors in December 2013.

Projects may be extensions of existing research projects (whether or not these projects have been supported by NMEF in the past) or original studies. We expect to make grants ranging from \$100,000 to \$200,000 per year for up to two years.

Proposed projects should address effects of student-centered learning approaches in one of two areas:

- 1) **Competency Education** (Also called competency-based education, proficiency-based pathways, mastery education).
- 2) **Other key high-leverage student-centered approaches.** The applicant will specify the approach and how it meets the criteria stated in Section II., above. Examples of other student-centered approaches include:
  - a) **Blended Learning.**<sup>4</sup> Any Blended Learning practices will need to use technology specifically to personalize learning in ways aligned with the NMEF definition of student-centered learning, as described above. Projects should not be a test of a commercial product, although existing proprietary software or systems already being used by a school or district may be part of the study.
  - b) **Performance-Based Assessment.**<sup>5</sup> Research on performance-based assessment should examine the implementation and effects of highly develop practices in this area, especially when being used for summative purposes.
  - c) **Strategies to increase student “ownership” of their learning.** This broad area includes a set of practices that increase students as agents of their learning. Research that describes and tests one or more promising practices that shift students’ sense of belonging, motivation, academic efficacy, self-regulation or other related outcomes are all acceptable.
  - d) **Other student-centered learning practices** that meet the four criteria listed in Section II, above.

In each case, all three of the following research questions should be addressed by the study:

1. *What are the effects of this approach on students’ preparation for post-secondary education, e.g., on student engagement, achievement, and/or attainment?*
2. *In particular, how can the specified approach promote positive educational outcomes for underserved students?*
3. *What specific practices and contextual factors contribute to these outcomes?*

Institutions that meet the following requirements are eligible to apply for funding under this Request for Proposals:

1. The lead organization for a proposal must be an established research institution with a track record of high quality research in the identified areas. Proposals will be accepted from colleges, universities, and nonprofit research organizations. Other organizations are not

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<sup>4</sup> The Foundation does not have an official definition of Blended Learning or Blended Instruction. For insight into how we think about this field, a good resource is [“Blended Instruction: Exploring Student-Centered Pedagogical Strategies to Promote a Technology-Enhanced Learning Environment”](#) (LaBanca et.al., 2013).

<sup>5</sup> The Foundation subscribes to the definition developed by the [Quality Performance Assessment project](#) at the Center for Collaborative Education: “Performance assessments are multi-step assignments, accompanied by clear criteria, expectations and processes that build and measure competency in transferring knowledge and applying complex skills. The assessment activities encourage students to engage with rich content to create or refine an original product or solution—essential skills for 21<sup>st</sup> century college, career and civic life.”

eligible to apply as the lead organization, but are encouraged to participate in partnerships with qualified research organizations.

2. Partners may include: individual public schools, school districts, charter management organization, community-based organizations, state education agencies (SEAs), technical assistance providers, education intermediaries, and other research organizations. Partners are not required to be eligible to receive a grant from NMEF, or to meet the criteria for lead organizations listed above. Letters of support will be required from all partners.

All projects should be able to be conducted between January 2014 and December 2015.

# V. Proposal Guidelines

Please respond to the following questions in your narrative and any additional appendices. You do not need to respond to them in order, but please cover each area.

## *1. Research Framework*

- a. How will this project respond to each of the three key research questions? What other questions will it address, if any? What specific subgroups of underserved students will be included?
- b. What is the relevant literature that informs your project? Please summarize briefly with a few key citations only. How will this project build on existing knowledge?
- c. Please indicate any theoretical frameworks that inform your approach and any hypotheses you will be testing.

## *2. Research Design*

- a. Please summarize the overall research design. Please include: conceptual framework, research methods, sample (and sampling approach, if relevant), data collection instruments (not including those discussed in response to question 4, below), and data analysis approach.
- b. Student-centered practices should have been in place for at least one year prior to the study to allow for mature implementation.
- c. Please provide expected sample sizes for both the students and the teachers. How will unplanned missing data be handled? What are the implications of this approach? What are the sizes of effects that you expect in this study and will your sample provide adequate power to detect these effects? If you are utilizing an existing data set, please describe, including identification of variables related to student-centered learning.
- d. How will student outcomes be assessed, including outcomes for underserved students? Please describe what measures will be used, your rationale for choosing them, and what domains will be included in these measures.
- e. What specific practices (competency education or other student-centered approaches) are being examined? What working definition will you use? What measures of this practice will you use or develop? Will the intensity, fidelity, quality, or other characteristics of the approach be measured? If so, how?
- f. Research suggests that external conditions—from state policy to school culture—can have a powerful influence on the outcomes of particular educational approaches. What contextual

influences will you include in your research design and how will this potentially influence the results?

- g. How will we know that the outcomes are the result of the focus practices and not other features of the school or contextual factors? Will you use experimental or quasi-experimental methods? If so, please describe your approach, including selection and measurement related to the control or comparison groups. If not, please describe how results will be attributed to the intervention or approach. How will you deal with threats to validity, including selection bias?
- h. What is the unit of analysis? How much information will be available at the individual students/subgroup/school level? What specific subgroups of students will be disaggregated?
- i. Please describe the anticipated sample, including both school and student-level information, as applicable, either in the narrative or as tables included as appendices. Potential school data: size, ages/grades served, demographics of the student population, achievement outcomes (e.g., NCLB status by subgroup), attainment outcomes (dropout rates, graduation rates, and/or post-secondary enrollment) location (urban/rural), student-centered practices, and notable aspects of the school's history or approach. Potential student data: ages/grades, demographics including racial/ethnic, ELL and FRL status, school achievement and attainment data.

### ***3. Outcomes of Research***

- a. What new knowledge is expected to result from this research? Specifically, what can we learn from the results about the effectiveness of competency education or another specified approach? About the external and contextual factors that may support or hinder positive outcomes? About unintended consequences?
- b. What implications might the findings have for educational practices or models, policy, or public awareness?
- c. Briefly, what ideas for dissemination of the findings do you have? How do you see this research being used, and by whom? Please build into your budget adequate time to work with editors and communications professionals on subsequent reports and other materials that build on your research.

### ***4. Capacity to Carry Out Work***

- a. Please briefly describe the capacity of the lead organization and each of the partnering organizations to carry out this research, including a track record of similar efforts. (Please include letters of support from all partner and subcontracting organizations in appendices.)
- b. Describe the management plan for this project, including how it fits with other projects currently underway.
- c. Please briefly describe key staff (from the lead organization or any subcontractor) and their roles in the project. For research staff, list other past and current research projects that are directly relevant to this proposal. If there are staff members who will be hired, describe the qualifications for these positions. For each key staff person, please append a current CV or resume of no more than five pages.

- d. Please describe your access to an appropriate sample of schools and students, if not previously covered. If schools or school networks are participating as partners, how will this shape sample selection? If the grantee will be recruiting schools or other organizations, how will recruitment be conducted? What guarantees of participation do you currently have? How can you guarantee a sufficient population of underserved learners?
- e. Please describe two or three key challenges you anticipate in carrying out this project, and how you might address them.

### ***5. Workplan and Budget***

- a. Please include a workplan (no template provided) with key tasks, and timeline in an appendix to the proposal. If applying for two years of funding, all documents should include the full project timeline.
- b. Please include a list of deliverables, including interim findings, and any final products (including but not limited to a final report). An early deliverable should be a full definition of the student-centered learning practice (including competency education, if applicable) to be tested and a complete description of how it will be measured. Deliverables may be included in workplan, above.
- c. Please include a budget (template in Download Template section in the portal) with a budget narrative for the full budget request. Use a separate tab in the file for each year of the request, (see tabs in Budget Template Microsoft Excel file). Detailed budget guidelines are included in a separate file.
- d. We recognize that the resources available through this RFP will not cover the full costs of some important research and evaluation projects. If funds from other sources are needed beyond those requested of NMEF, please identify specific source and current status (e.g. already obtained, awaiting decision, not yet submitted for funding, etc.).

### ***6. Student-Centered Learning Focus (optional—2 additional pages)***

For those research projects that are NOT focusing on competency education: in no more than two additional pages, please describe the specific student-centered approach that is the focus of your research. Include a description of specific practices that are involved in this approach, a rationale for why they are student-centered, and a response to each of the criteria listed in Section II.

## VI. Proposal Requirements

*Please read this section carefully before submitting a proposal as it contains important information. Questions from prospective grantees will be answered on our RFP FAQ, posted on the NMEF website and updated regularly over the course of the submittal period.*

1. All applicants must be eligible for grants from NMEF. The Foundation supports 501 (c)(3) organizations that include higher education institutions and other nonprofit organizations that fall under the tax designation 509(a)(1) or 509(a)(2) and have an education focus, as evidenced in their articles of incorporation. Only 501 (c)(3) organizations with the further designation of 509(a)(1) or (2) are eligible to receive a Foundation grant.
2. Research organizations and colleges and universities that meet the grant eligibility criteria described above are permitted to apply for this funding. Partnerships between research organizations and K-12 educational entities or other organizations are permitted, as long as the lead organization has primary responsibility for the research activities that will be undertaken as part of this project.
3. The Foundation focuses its funding on educational entities in the six-state New England region. However, school sites and/or data from respondents located outside the New England region are eligible for this grant opportunity when there is clear reason to do so. Please explain why data will include respondents outside the New England region in your narrative, as appropriate.
4. A key early deliverable will be a clear, measurable, framework for competency education and/or other student-centered learning practices that are the focus of the proposed research project. This framework should include both a thorough description of the approach and a discussion of what parameters of high quality implementation are hypothesized to be important to positive and equitable results. The project may adopt an existing framework and provide rationale for this choice.
4. Proposals of no more than 12 pages single-spaced with at least 6 point spaces between paragraphs, one inch margins, and 11 point font will be considered. Appendices are not counted toward this maximum, but please do not append materials such as reports from previous projects.
5. We expect grants to be between \$100,000 and \$200,000 per year for up to two years. In general, we expect proposals for secondary data analyses to fall at the lower end and research projects that require collection of primary data from multiple sources to fall at the upper end of this range.
6. Indirect costs are capped at 15 percent (see Budget Guidelines, a separate document in the RFP portal, for a description of indirect costs).
7. There is no limit to the number of proposals that any organization may elect to submit, either as the lead organization or a subcontractor. However, a maximum of one proposal will be selected for funding in which any individual organization is participating. For example, if an organization submits two proposals and is a subcontractor on another proposal, only a maximum of one of the three will be selected for funding.

8. NMEF's work currently focuses on secondary education (high schools). While we do not have exact criteria for ages/grades, we do expect that most, if not all, of sampled schools and students in the projects funded as part of this opportunity will be in secondary education.
9. IRB approval is not required at this time. However, all grants requiring IRB approval will need to obtain such prior to the disbursement of any grant funds.

## VII. Criteria

In addition to meeting the qualifications described above, the following are the criteria we intend to apply in the process of choosing successful proposals. Please note that the Foundation reserves the right to revise these criteria prior to the review process.

Item	Description
1. Student-centered learning	<ul style="list-style-type: none"> <li>• Proposal demonstrates understanding or NMEF’s definition of student-centered learning</li> <li>• Proposal demonstrates deep understanding of competency education and/or other components of student-centered learning, including state of field, challenges, and appropriate research</li> <li>• Project clearly addresses one or more of the key focus areas</li> <li>• The practices being tested are sufficiently developed to result in outcomes for students</li> </ul>
2. Contribution to knowledge base	<ul style="list-style-type: none"> <li>• Proposed research project/evaluation will provide insight into the effects of competency education and/or other components of student-centered approaches to learning</li> <li>• Results are likely to have direct implications for policy and/or practice.</li> <li>• The research will result in information about the necessary conditions for successful implementation of the focus approaches of the study.</li> </ul>
3. Outcomes	<ul style="list-style-type: none"> <li>• Achievement outcomes (if collected) include traditionally measured core content <u>as well as</u> other knowledge and skills important for post-secondary success (e.g., critical thinking, metacognition, self-efficacy).</li> <li>• Rationale for outcomes chosen is included with clear description of how outcomes will be assessed.</li> </ul>
4. Research Framework	<ul style="list-style-type: none"> <li>• Conceptual framework, research questions, and hypotheses are worded as to be empirically testable.</li> <li>• Potential problems carrying out the proposed study plan are acknowledged and alternatives/workarounds proffered</li> <li>• Threats to validity are discussed and satisfactorily addressed</li> <li>• Competency education and/or other student-centered practices are clearly defined and a full definition, including quality parameters, is an early deliverable.</li> </ul>
5. Research Questions	<ul style="list-style-type: none"> <li>• Proposal adequately addresses key research questions included in the RFP</li> <li>• Uses relevant literature to inform project</li> <li>• The theory underlying the project approach is described and supported</li> </ul>

Item	Description
6. Research Design	<ul style="list-style-type: none"> <li>• Methodology for project reflects state-of-the-art research design, including methods, measures, and analyses</li> <li>• Conceptual framework, research methods, sample, data collection instruments, and modes of analysis are described and appropriate for the project.</li> <li>• Measurement of specific components of practices is included and will capture implementation process.</li> <li>• Describes threats to validating, including selection bias, if appropriate</li> <li>• Design of data collection (number and timing of assessments, number and type of samples, mode of data collection, etc.) is appropriate for the research questions/hypotheses proposed.</li> <li>• Psychometric properties of proposed assessment instruments are provided or, if measurement development is proposed, plan for validation is given.</li> <li>• Analysis models are appropriate to the research questions/hypotheses and unit(s) of analysis. Analysis models align with the expected distributional properties of the outcomes.</li> <li>• Able to describe what we will learn about necessary context/conditions for successful implementation of SCL approaches. Research design includes and accounts for contextual influences</li> </ul>
7. Sample	<ul style="list-style-type: none"> <li>• Anticipated sample is described, including school and student-level characteristics. Community and family characteristics may also be included.</li> <li>• Sample is representative of target population, or, if potentially biased, measures taken to minimize bias are discussed.</li> <li>• Proposed sample represents appropriate units of analysis.</li> <li>• Description of sample is provided.</li> </ul>
8. Underserved	<ul style="list-style-type: none"> <li>• Proposed research will provide insights on effects of SCL on underserved learners</li> <li>• A significant proportion of the sample will consist of underserved learners</li> <li>• If a specific subgroup is identified (e.g., ELL students), the sample size is sufficient for analysis.</li> </ul>
9. Workplan	<ul style="list-style-type: none"> <li>• Workplan is realistic and appropriate</li> <li>• Deliverables are appropriate and will help to communicate findings to key audiences</li> <li>• All partners have clearly defined, appropriate roles</li> </ul>
10. Budget	<ul style="list-style-type: none"> <li>• Budget is within required range</li> <li>• Project has the resources required to accomplish proposed research.</li> <li>• Adequate effort is proposed for research staff, provided in the budget, and justified.</li> <li>• Expenses are reasonable.</li> </ul>
11. Staffing	<ul style="list-style-type: none"> <li>• Project is led by high-capacity researchers who have the expertise to carry out the methods and analysis proposed.</li> <li>• Leadership by appropriate senior evaluators or researchers, with sufficient time devoted to the project</li> <li>• Researchers have appropriate experience and demonstrated capacity to successfully carry out proposed work</li> <li>• Non-research partners (e.g., schools and/or intermediary organizations) have significant and appropriate roles, and evidence that they have the capacity to carry them out.</li> </ul>
12. Capacity	<ul style="list-style-type: none"> <li>• Submitting institutions has excellent track record of similar research in education</li> <li>• Past work of organization demonstrates understanding of issues in education research regarding underserved learners</li> <li>• Proposal demonstrates understanding of challenges inherent in the research and ways to address</li> </ul>

All attachments must be submitted through the [NMEF Portal](#) by 12:00 noon on Wednesday, October 30<sup>th</sup>.

Documents will be submitted as follows:

1. Narrative
2. Budget
3. IRS Tax Status letter
4. Other documents
  - a. Budget narrative
  - b. Workplan
  - c. Information on lead staff (limit of 5 pages per individual)
  - d. Conceptual framework
  - e. Letters of Support from all identified partners

Questions regarding the RFP should be sent to [rfp@nmefoundation.org](mailto:rfp@nmefoundation.org). Responses to questions will be posted in a frequently updated FAQ on the NMEF [website](#).

# Appendix A. Student-Centered Approaches to Learning

## *Why student-centered learning?*

To prepare for our future as a nation in an increasingly global, complex, and fast-changing society, dramatic change in our educational system is needed. At Nellie Mae Education Foundation, we strive to create opportunities so that all New England students, especially those who are currently underserved, are able to obtain a meaningful post-secondary degree or credential.

We can no longer afford to accept inequality in educational opportunity. We recognize that achieving success for all students requires creation of an orchestra of balanced parts, including schools, families, and communities, that will not only result in much higher outcomes for students who are currently underserved, but also close the gaps between what students are currently learning and what they will need to know to succeed.

Recent research from neuroscience and developmental theory on how people learn, coupled with new technological tools that support greater adaptability in the learning process, are moving education away from “one-size-fits-all” practices towards more customized, innovative approaches to student-centered learning.

## *What are the principles of student-centered learning?*

1. Student-centered education systems provide all students equal access to the skills and knowledge needed for college and career readiness in today’s world.
2. Student-centered education systems align with current research on the learning process and motivation.
3. Student-centered education systems focus on mastery of skills and knowledge.
4. Student-centered education systems build students’ identities through a positive culture with a foundation of strong relationships and high expectations.
5. Student-centered education systems empower and support parents, teachers, administrators, and other community members to encourage and guide learners through their educational journeys.

## *What are the key attributes of student-centered learning?*

We have identified four key attributes of the SCL instructional core:

***1. Curriculum, instruction and assessment embrace the skills and knowledge needed for success in college and careers.***

Learners are actively engaged in meaningful, authentic tasks that build skills in critical thinking, problem solving, and communication as well as core subject areas like ELA, math, and science. Learning opportunities are designed with the learner in mind, and can be differentiated depending on the learner's profile of needs and interests.

Examples: Expeditionary Learning, Asia Society ISSN, New Tech Network, High Tech High

***1. Community assets are harnessed to support and deepen learning experiences.***

The schools walls are permeable—benefitting from multiple outside individual, organizational, and technological resources. Learner's experiences build their cultural and academic identities through meaningful exposure to a variety of workplaces, role models, career pathways, online resources, community leaders, peer teachers, apprenticeships, internships, college courses, and projects.

Examples: Big Picture Learning, Expeditionary Learning, VOISE Academy High School, High Tech High

***2. Time is used flexibly and includes learning opportunities outside the traditional school day and year.***

Time is fully utilized to optimize student learning as well as provide time for educators to engage in reflection and planning. Students have equitable opportunities to learn outside of the typical school day and year in a variety of settings and can receive credit for this learning based on demonstration of skills and knowledge.

Examples: Brooklyn Generation School, Envision Schools, Thomas Haney High School

***3. Mastery-based strategies are employed to allow for pacing based on proficiency in skills and knowledge.***

Progress is based primarily on mastery of a body of skill or knowledge, rather than a student's age, hours on task, or credits. Mastery-based (also referred to as competency-based) approaches transfer primary responsibility for learning to the student, and provide ongoing information on progress toward goals.

Examples: Adams 50, Florida Virtual Academy, School of One, Francis W. Parker Charter School, Young Women's Leadership Charter School of Chicago

*What resources and supports are needed?*

To become student-centered, education systems may need to realign key infrastructure and supports, such as: data systems; assessment systems; human capital development and delivery; management and leadership; and the technology needed to support all of the above. Of course, schools that are student-centered exist in a larger system of resources, policies, and community support, all of which will have a significant impact on the ultimate success of schools and students.

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