Integrated Learning Systems

Leveraging Education Technology for Student-Centered Learning

September 2016

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EDUCATION
FOUNDATION

About the Nellie Mae Education Foundation

The Nellie Mae Education Foundation (NMEF) strives 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 support necessary to become civically engaged, economically self-sufficient life-long learners.

As the largest philanthropy in New England dedicated exclusively to education, NMEF is committed to reshaping the high school learning experience by working with districts, schools and organizations to implement the principles of student-centered learning - learning that is personalized, engaging, competency-based, and happens anytime, anywhere.

The Foundation's grant-making strategy acknowledges that the focus of education has historically been to fix one part of a broken system by improving one school among many, for example, or by addressing the needs of one group of students rather than another. This narrow approach has contributed to consistently and profoundly unequal results for historically underserved populations by leaving untouched the core aspects of a system that enable such results.

The Foundation has a Big Goal: universal post-secondary attainment supported by universal college and career readiness for all New England public school graduates. Currently in New England, only 50 percent of students (32 percent of low-income students) who enter high school as freshmen will graduate ready. We have made progress on readiness in recent years, but we are moving too slowly.[1] As a benchmark to the Big Goal, the Foundation seeks to increase the rate of readiness in New England to 80 percent by 2030. In 2015, the Foundation adopted an ambitious, five-year plan that incorporates four new initiatives to catalyze change more urgently. We believe that the interaction of these initiatives will advance the 2030 readiness goal:

Build Public Understanding and Demand:
The goal of this initiative is to build stronger public awareness and understanding of innovative approaches to public schooling, while cultivating public support and demand. Learn More.

Build Educator Ownership, Leadership, and Capacity:
To implement student-centered approaches to learning with rigor and reliability, tools and resources must be developed and utilized. Learn More. The opportunity described below is a part of this initiative.

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[1] At our current rate of improvement, it would take 100 years to reach 80 percent readiness in New England and 70 more years to reach 100 percent readiness.

Develop Effective Systems Designs:
A cornerstone of the Foundation's mission is to promote the transformation of education systems towards student-centered approaches. Learn More.

Advance Quality and Rigor of Student-Centered Practices:
This initiative focuses on building a research base of evidence supporting student-centered learning through evaluations of student-centered practices in high schools, researcher-practitioner collaborations, and establishing criteria for what it takes to put high quality, student-centered learning into practice. Learn More.

Background

The implementation of student-centered learning requires fundamental changes away from traditional local educational agency (LEA), school and educator practices. It involves complex, data-intensive tasks like differentiating instruction for every student, ensuring that each student is mastering competencies at their own pace, and facilitating students' progress through a range of pathways. In order to ensure that every student benefits from student-centered learning, it must be implemented at scale across education systems – meaning implementation must not require heroic levels of effort from the educators charged with employing it. The right set of tools should help pave the way forward for that systemic implementation, speeding progress and ensuring that all students leave school ready for college and career.

Education technology may be one critical tool that can make such a transformation possible, by streamlining the execution of student-centered practices – such as data collection and analysis, differentiation, individualization, or formative assessment – and allowing teachers and administrators more time to focus on teaching and learning. Technology can potentially help students engage in their learning in new ways, allowing them to become active participants in their own education. These tools can include learning management systems, student information systems, assessment systems, learning resources discovery and management systems, data and analytics systems, collaboration and social learning tools, and many others. The various functions that technology can play in education are categorized and analyzed in the iNACOL publication *Functional Requirements for Integrated Systems to Optimize Learning*. If technology tools are designed from the ground up to support student-centered learning, they may even help accelerate the pace of change, by lowering the bar for entry and encouraging more educators to experiment with features that lead them to student-centered practices.

Unfortunately, education technology products tend to be built to serve the largest segments of the industry. Development costs are high, and there is incentive to create products that will have immediately large markets. As such, many products are designed around our current, antiquated

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systems – they might, for example, use courses, not competencies, as the primary organizing structure – and are intended to help digitize traditional models of teaching and learning. The feature limitations of these tools may translate into limitations on the implementation of student-centered learning, as education systems dependent on a particular tool find themselves wanting to pursue practices that are unsupported by their technology.

The procurement of education technology products is similarly problematic. Choices about particular technology tools, like a particular piece of online curriculum or a learning management system, may be selected one at a time to meet single needs. Multiple people – individual teachers, IT staff, LEA officers – may be involved in selecting and vetting tools. Many schools and LEAs lack staff with deep understanding of both technology and teaching and learning, making it hard to effectively translate between the language of education and that of software developers. Individual tools may not always comply with data and interoperability standards, limiting the flow of data and requiring arcane and time consuming work-arounds. Plus, choices for some tools – like the student information system – may be limited by state or LEA mandates. The result is often a mismatched suite of tools, used unevenly across the system, that is not always clearly connected to pedagogy and the school or LEA's vision for instruction and learning.

Problems at both the supply and demand sides of the education technology market mean that the needs of educators interested in student-centered learning are not being articulated in ways that translate into the creation of viable products. Schools and LEAs pursuing student-centered learning encounter a market that is not catering to their needs. And those shopping for technology to support more traditional models of education do not routinely encounter options and features that might prompt them to consider other possibilities. In many cases, individual teachers, schools, or LEAs are all working at different levels of this complex market to solve their problems – developing multiple and overlapping solutions.

Goals

The Foundation is interested in exploring more effective ways to address these issues. We seek to ensure that tools and resources that support the implementation of student-centered learning are effectively utilized by New England educators. For education technology specifically, we believe that the existence and implementation of integrated suites of technology tools designed to work seamlessly together in support of student-centered learning will accelerate the transformation of traditional public education systems to student-centered systems. We hope to support the development of these "integrated learning systems" while also refining a replicable process for tool design and implementation. Achieving this goal will entail a number of considerations:

1. *An integrated, comprehensive approach*: It is unlikely that a single product will be able to adequately address the range of features needed to support student-centered learning. It will

be important to consider a suite of products as an integrated, modular stack, with attention paid to integration points, interoperability, and the ability to swap out components as needs evolve over time.

2. *Matching technology features to specific needs:* In order to make informed decisions about which technologies to employ and how they should be integrated, educators need to be able to articulate their needs related to instruction and student learning and to translate those needs to specific technology functions.

3. *Productive partnerships with vendors:* Some of the most student-centered technology tools – like Summit's PLP or Innovate EDU's Cortex – have been developed through deep partnerships between educators and tool creators. These partnerships ensure that educators' needs are met and that tools can progress through iterative design cycles that hone their utility.

4. *Scale and spread:* It is not reasonable to expect each school to develop unique solutions to their technology needs. While schools or even individual teachers may wish to preserve a level of choice around some aspects of the technology stack, it is likely that LEAs, groups of LEAs, or states are better placed to broker solutions that make it simpler to scale and spread the use of student-centered learning supportive technologies. State-level coordination of early efforts can help gather learning from a select cohort of LEAs and use it to inform similar work across the state in a variety of local LEA contexts. Scale and spread should be considered from the outset for this work to drive progress towards 80% readiness by 2030.

Funding Priorities

The Foundation seeks a state department of education or an organization with state-wide influence to lead an effort supporting at least six LEAs within a single state through the planning and piloting process described below. Funding will be provided to support the process, to engage technical assistance providers and other partners, and to re-grant to participants to support local work. Grants will be made by the end of 2016, for 18-month grants beginning in January 2017.

The Foundation sees four elements as critical to the process: selecting the right group of participating LEAs, technical assistance providers, and vendor partners; a self-assessment process; an iterative design and piloting process; and developing a plan for scale. The description below and the proposal questions in the next section represent a particular approach to the process that the Foundation believes will be successful. Applicants are expected to detail how they would approach this process or to propose an alternative approach to these four elements along with a rationale for the change.

Selection Process

1. *Identify and vet prospective participating LEAs*
   a. Proposals will name participating LEAs or outline a plan to identify and vet participating LEAs by the first quarter of 2017.
   b. LEAs must show momentum toward student-centered learning and a commitment to pursuing it systemically, as well as an interest in and ability to develop an integrated learning system.
   c. Work within LEAs will focus at the high school level; other grade levels may be included but should not be where the majority of work is carried out.
   d. An ideal cohort will represent a range of LEA sizes and types, may involve various combinations of LEAs or schools, that are employing a range of student-centered instructional models. The cohort will be representative of the state, its underserved students, and a variety of approaches to student-centered learning. Design and piloting must take place in locations that represent the full range of the state's LEAs to ensure scalability of solutions.
2. *Identify technical assistance providers*
   a. Proposals may name one or more technical assistance providers or outline a work plan to engage providers as part of or as a result of the self-assessment process.
   b. The prospective grantee or its contracted technical assistance providers will collectively be prepared to address the activities listed in the following section.
3. *Identify prospective vendor partners*
   a. Proposals may name vendor partners or outline a plan and timeline for engaging with vendors.

Planning and Piloting

1. *Technology self-assessment*
   Lead participating LEAs through a multi-stakeholder process – especially involving teacher and principal leaders - to understand what education technology is currently employed, how it is used – by teachers, students, parents, administrators, and others – and to what extent it is meeting needs related to instruction and student learning
   a. The self-assessment will incorporate the functional requirements and conceptual framework introduced in iNACOL's recently published *Functional Requirements for Integrated Systems to Optimize Learning*.
   b. The self-assessment will include an examination of teaching and learning practices, looking both at the level of student-centered learning and at the degree to which practices are supported by current technologies.
   c. At the end of the self-assessment, LEAs will be poised to make more effective use of current technologies to maximize student learning in a student-centered system, will have a detailed and shared understanding of missing functionalities and any changes that may need to be made to improve technology integration, and will be well-placed to seek out and engage with technology vendors.

2. *Designing and piloting an integrated learning system*
   With each LEA, facilitate an iterative design process with multiple stakeholders to establish detailed, sustainable plans to customize and implement a complete, integrated, modular suite of technology solutions tailored to each LEA's instructional model and local context. Complete integrated solutions will have considered and accounted for the functional requirements and conceptual architecture described in the iNACOL publication *Functional Requirements for Integrated Systems to Optimize Learning*

   a. The grantee will employ a specific iterative design methodology, and build local capacity to employ that methodology. LEAs will conduct small-scale pilots to test and refine their plan along the way. Technical assistance should both help them develop plans likely to succeed in implementation and develop capacity to continue improving during implementation.

   b. The grantee will facilitate input and participation with a range of stakeholders in each LEA community, ensuring that the resulting integrated learning systems are designed with all users in mind.

   c. The grantee will ensure that LEAs build sustainable plans to both develop and implement their integrated learning system. Technical assistance should help LEAs address sustainability and budgeting from multiple angles, including purchasing and customizing needed hardware and software, providing needed training to staff, students, and community members, and ensuring an adequate level of ongoing support through IT personnel and hardware and software maintenance.

   d. The grantee will work with participating LEAs as a cohort to identify sections of the technology stack that may best be addressed at the state level and made available to all participants. They will ensure that LEAs share learnings with one another, so that they can build from one another's successes and avoid repeating mistakes.

   e. The grantee will broker partnerships between LEAs and technology vendors, so that vendors participate during design and piloting, develop strong understanding of grantee needs, and are able to customize products to suit those needs.

Plan for Scale

At the conclusion of the planning and piloting process, the grantee and participating LEAs will be expected to develop plans to scale up successful pilots, so that the work can spread throughout participating LEAs and to other communities throughout the state. The plan will include strategies for ongoing state support of LEAs, full implementation at the LEA and school level, and ongoing sustainability. The plan should detail how scaling and spreading integrated learning system solutions will help advance student-centered learning and improve student readiness across the state. Multiple timelines should be developed for local LEA and state level plans for scale that will be accomplished without additional grant funding but could be accelerated with additional funds. The Foundation will decide in the future whether to pursue a second phase of funding, and that decision will be informed by plans for scale and progress made during this grant period.

Proposal

In no more than 15 pages, provide your responses to sections 1-5 below in a Word document. Additional details may be included in no more than 3 attachments. Please organize your response according to the following structure:

Section 1: Vision

1. Describe the conditions in your state that are supportive of a transformation toward student-centered learning. What momentum towards the four tenets of student-centered learning already exists? How will a focus on integrated learning systems help facilitate systems transformation, and how would it fit within other efforts to improve education in your state?
2. What systemic conditions in your state and in local LEAs perpetuate achievement gaps and how will the proposed activity further equitable opportunity?
3. Describe the expected outcomes of your work within the grant period, along with their indicators and measures.
4. Describe the expected long-term outcomes of your work, along with their indicators and measures.

Section 2: Lead Organization and Partners

5. Describe the Lead Organization, its role within the state, and its capacity to lead this initiative.
6. Describe the key partners that will be needed for success, and how the partnership will be managed. Attach letters of support and endorsement from supporting agencies and organizations or signed letters of intent to participate from LEAs as appropriate (all letters of support should be combined into a single document, which counts against neither the total page count nor the 3 optional attachments).
   a. What capacities do partners bring to the table?
   b. What strategies will be used to ensure effective coordination of effort? How will project management be handled and staffed?
   c. Are there any partners or capacities that are needed but not yet identified? If so, describe how you will address those needs in the early stages of the grant period.
7. How will you select participating LEAs? What criteria must be met in order to participate? How will equitable opportunity be furthered in the selection process? If LEAs have already been selected, describe the process used and explain why selected LEAs are the right early partners for the work.

Section 3: Technology Self-Assessment

8. Describe the current status of education technology in your state. What is working well, and what are the key problems? What roles do schools, LEAs, and the state play in decisions about education technology? What needed pieces of information are missing?
9. Explain how you will address the Technology Self-Assessment:
    a. What technical assistance provider(s), consultant(s), or organizations will you engage to help lead this work, and why? If you have not identified one, explain how you will select one in early stages of the grant period.
    b. To the extent possible, describe:
        i. The methodology that would be employed to facilitate an assessment process,
        ii. How the process will ensure that the right group of people is able to participates in and meaningfully contributes to the self-assessment process,
        iii. How the process will incorporate the functional requirements and conceptual architecture described in the iNACOL publication *Functional Requirements for Integrated Systems to Optimize Learning*,
        iv. The estimated draw on LEA time, including who should participate, how they will engage in the work, and how often and for how long they would need to engage, and
        v. The final products that will result from the self-assessment and how they could help inform the design and pilot phase.

Section 4: Design and Pilot

10. Explain how you will address the Design and Pilot of an Integrated Learning System:
    a. What technical assistance provider(s), consultant(s), or organizations will you engage to help lead this work, and why? If you have not identified one, explain how you will select one in early stages of the grant period.
    b. To the extent possible, describe:
        i. The iterative design methodology that would be employed,
        ii. How the process will ensure that the right group of LEAs participates in and meaningfully contributes to the design process,
        iii. How the process will incorporate the functional requirements and conceptual architecture described in the iNACOL publication *Functional Requirements for Integrated Systems to Optimize Learning*,
        iv. The estimated draw on LEA time, including who should participate, how they will engage in the work, and how often and for how long they would need to engage,
        v. How the process will build LEA and/or state level capacity to employ iterative design methodology to implement their plans, and
        vi. The final products that will result from the design process and how they will help LEAs move forward with and without additional grant funding.

      c.   How you will broker relationships with vendors and facilitate their participation in the design process?

11. Explain how you will engage with LEAs both separately and as a cohort:
      a.   How will LEAs benefit from each other's work and learning along the way?
      b.   What supports will be offered to participating LEAs?

Section 5: Project Plan and Budget

12. Include a detailed work plan describing the timeline for the work and who will carry out the work.
13. Using the official budget template linked in the online portal, outline a budget and budget narrative that explain how and why funds will be allocated among participating LEAs, TA providers, and other partners. **The total budget should not exceed $1,200,000**.
      a.   How will sub-grants to participating LEAs be handled? Will participating LEAs be expected to provide matching funds or in-kind contributions?

Proposal checklist

A complete proposal must include:
- Narrative response to questions above
- Budget formatted in the budget template
- Budget narrative
- Work plan

Proposals may also include the following optional items:
- Letters of support from partner LEAs, organizations, vendors, and/or technical assistance providers, all combined into a single document and submitted as an attachment
- Up to 3 additional attachments as needed

Criteria for selection

Strong proposals will exhibit the following:
- Vision for employing integrated learning systems as tools to transform education systems towards student-centered learning and ensure the success of all students
- Demonstrable momentum toward student-centered learning, with implementation of at least some student-centered learning tenets
- A coalition of partners that bring all needed perspectives, expertise, and capacity to the table, with an appropriate delineation of roles and leadership
  - While not required, proposals that include signed letters of support or of intent to participate from partner organizations, state education agencies and/or governor's

office, participating LEAs, vendors, and other partners will be given additional consideration
- Strong understanding of, insights about, and specific strategies to address inequities in education – especially systemic barriers that contribute to gaps in student achievement by subgroups and differences in technology access and internet connectivity at local and state levels
- Detailed plans to address selection of participants and partners, self-assessment, design and piloting, and planning for scale
- Attainable but ambitious outcomes that connect to proposed activities
- Work plan and budget that show feasible staging and effective coordination of efforts
  - While not required, budgets that show commitment to the work from state and local partners, including leveraging matching funds or in kind contributions from state or local LEA budgets or other sources that directly align with and will fund a portion of the project work will be given additional consideration

Additional Information

The Foundation assumes that a single organization will assume the lead role in this work within each state, and this organization will receive funding to distribute and manage for a number of purposes, such as: grants to support participating LEAs, contracts with technical assistance providers or consultants, purchase of needed technology licenses, and project management.

Eligible organizations to receive this grant include state departments of education, non-profit community based organizations, and others that meet the Foundation's eligibility requirements. The Foundation operates exclusively for the benefit of, and to promote the charitable and educational purposes of, educational organizations, including universities, colleges, secondary schools, elementary schools, and other educational organizations which are described in IRC Section 501(c)(3) and which are not private foundations as described in IRC Section 509(a). The Foundation's activities include making grants to the public charities it supports and providing services to those organizations. The Foundation only supports public charities described in IRC Section 509(a) (1) or 509 (a) (2) and only organizations that are organized in the United States. The Foundation does not support religious groups or individuals, and does not fund capital campaigns, endowments, scholarships or fellowships, debt reduction or cash reserves, building construction or renovation, and certain indirect costs.

Grantees will be expected to participate in an evaluation or monitoring process to track outcomes of the grant fund. This process will involve a Foundation-funded third party organization. Grantees will need to budget staff time to participate in this process.

Proposals should be submitted through the Foundation's online portal by noon on October 12, 2016. Selected grantees will be notified in December 2016. The grant period will begin in January 2017 and will extend 18 months, concluding the end of June 2018. You may direct any questions about this opportunity to Lucas Orwig at lorwig@nmefoundation.org.

Proposal Submission Directions

Please follow these steps to submit your proposal through the Foundation's online portal:
A. Click on the application link that will take you to the login page.
B. Your Username is your email address.
   1. If you do not know your password click on "Can't access account?" and a temporary password will be sent to you.
   2. Once you receive a temporary password click on the link above to log-in.
   3. If the system does not recognize your email address, go back to the link in step A. and click on New Portal User Register. Once you have registered it is important that you go back to the link in step A. to start your request. Do not click on the Login link under "Your user account has been created".
C. Once you log in you will see five tabs
   1. Details (Fill in the fields. Fields with a red line are required. Scroll over the yellow circle with the question mark in it for more information about the field.)
      i. Fill in the Request Name – this is the name of the project or program you are requesting funding for.
      ii. Click Save – Your application has now been started and is saved in the system. You will see some additional information filled in and can now access templates described in this RFP at the bottom of the Details Tab. You can Save (and log out) and return to your proposal at any time before submitting. To return to your application, log in here using your username and password. Do not use the link above as that would start a new application.
      iii. Links to the RFP and templates are located at the bottom of the Details Tab.
         a. Any templates downloaded from the Details Tab will need to be saved in your system and uploaded as new documents in the Attachment Tab.
      iv. Click Edit to finish filling out the Details Tab.
      v. Click Continue when finished.
   2. Additional Contacts
      i. Click on the and New to add primary contacts associated with the work and managing the grant.
   3. Outcomes & Indicators - Not applicable to this RFP
   4. Attachments

i.   Attach all documents requested in the RFP.

ii. Only one document can be attached per field. A second document uploaded into a field will override the first one.

5. Review & Submit – Once a proposal has been submitted it cannot be edited. However, it will be available as view only.

D. Before you submit you will need to fill in some information about your organization. Click on the Profile link in the upper right corner and fill in the required fields on the Organization tab.

If you have a question or run into a problem at any time please contact Stephanie Cheney at 781.348.4240 or scheney@nmefoundation.org.