Overview of AIMS EduData Initiative

Due January 9, 2026

This call for proposals invites digital learning platforms to propose projects that involve integration of Carnegie Learning's UpGrade tool to support research on your platform. Successful applicants will propose a software integration that involves (1) integrating UpGrade into an existing digital learning platform (DLP), (2) conducting a demonstration A/B test (or other type of experimental design) on your platform using UpGrade.

Funded DLPs will participate in a second phase of RFPs in spring 2026 for engaging in short-term research partnerships that involve conducting educational research with their platforms, using UpGrade. Research partners can be either internal or external to platform organizations, and will be required to design and deploy field experiments in UpGrade aligned to the to the following priorities:

- Supporting students' motivation, engagement, and persistence in K-12 math
- Helping teachers save time or use time more effectively

In addition to providing funding, we will engage awardees in the AIMS Collaboratory and AIMS EduData network, which will provide opportunities for awardees to grow their professional network and knowledge.

Strong candidates will have established DLPs that are instrumented to collect data that reflects learning or motivational outcomes (correctness, time on task, hint use, self-efficacy, etc) and/or support teachers use their time toward more effective practices. Both commercial and non-profit organizations are invited to apply.

Background

In 2021, the K-12 Education Team at the Gates Foundation launched an effort called "R&D Infrastructure" to develop new research and evaluation capabilities in large existing digital learning platforms (DLPs). These capabilities were developed by teams of local education agencies, academic researchers, and digital learning providers to create research insights regarding how to improve math performance. Conducting research through widely used DLPs can accelerate research and development and make it easier to conduct replications to identify what works for whom under what conditions. The partners and platforms in the AIMS Collaboratory have been very successful in lowering barriers to make new discoveries in education based on learning platforms in widespread use among students.

In 2025, Digital Promise and Learning Data Insights launched a new phase of this program called AIMS EduData, in partnership with other efforts like SEERNet, to increase the pace of discovery and innovation in US education. So far the AIMS EduData initiative involves five DLPs and a community of scholars and educators conducting 10 research projects. Appendix A provides an overview of current DLPs in the initiative.

With this solicitation, we seek to add new DLPs to the AIMS EduData initiative to enable new discoveries in math teaching and learning. The new DLPs will contribute to the movement by expanding the range of platforms, data and tools available for research and development.

This Opportunity

This opportunity is open to early and mid-stage edtech platforms focused on K-12 math. These platforms may be commercial products, nonprofits, or based in research institutions, and/or may have previously leveraged A/B testing in a small capacity, but have not been involved in running multiple randomized trials, as would be enabled by UpGrade.

UpGrade is an open-source tool for conducting A/B tests and other types of experimental designs in EdTech platforms. It was developed and is managed by Carnegie Learning, who will provide technical support during the platform integration. UpGrade works by communicating with a client application through a series of API calls to initialize participants, assign conditions, and collect data when participants have reached the point in the client app where the experiment is meant to start. Additionally, UpGrade can collect group information (for instance, if group random assignment is desired), log metrics instrumented by the client application and display them in the UpGrade UI for tracking experiment success, and support feature flags. Experimenters can segment participants by individual or group ids, and construct both include and exclude segments, or participant lists. UpGrade can support simple randomization experiments (A/B or A/B/C/n) experiments, factorial and within-subject designs, stratified random sampling, and adaptive experimentation such as Thompson sampling. The UpGrade Demo site includes a brief walkthrough of how to set up an experiment using an example client app. More information can be found in UpGrade's Gitbook documentation, in the public Github repository, or by emailing upgradeplatform@carnegielearning.com.

To date, UpGrade has been used in more than 80 education research studies, reaching hundreds of thousands of learners. UpGrade can be used to test both content and features, and we expect that candidates will be prepared with ideas on what platform features or research questions they wish to explore via A/B testing and what outcome measures would be appropriate to evaluate success.

Example studies conducted with UpGrade include:

- Can showing students videos with quotes about how math is relevant to their everyday lives improve performance?
- Does rewriting math word problems to support students predicted to have lower reading skills improve such students' math performance?
- Does providing students with digital manipulatives compared with static images in math concept lessons improve engagement?
- Will students learn as effectively from an AI-generated math tutor, compared with pre-recorded video of a human tutor?

Successful applicants will be involved in the aforementioned research RFPs that recruit researchers interested in conducting educational studies in an UpGrade-integrated EdTech platform. We are interested to learn how new tools such as UpGrade can facilitate various types of research, including exploratory projects, measurement, and evaluation studies. The proposed research may be conducted by DLP staff or individuals working for an institution of higher education, a school district, research organization (e.g. a nonprofit) or U.S.-based small business or consultancy.

Our long-term vision is for the AIMS EduData initiative to grow into a robust community of researchers and educators working in partnership with DLPs to advance math education. We also intend to reduce commonly-encountered barriers to conducting DLP research through re-usable infrastructure and open

science practices. As such, we intend to open a solicitation for research studies with the new UpGrade-enabled DLPs in spring 2026.

Description of Grant Opportunity and Expectations

This solicitation offers grants of $60,000 for up to 6 months. Anticipated start date is February 1, 2026.

Successful applicants will be expected to achieve the following outcomes:

Phase 1

- Integration of the UpGrade A/B testing tool into their EdTech platform
- Completion of a feature test or research project using UpGrade that is aligned to the product roadmap
- Integration of study findings into the product roadmap
- Documentation of improvement/reduction in time to conduct R&D

Phase 2

- Support for up to two (2) third-party research projects, to be selected in future solicitations (expected in Q2 2026 and Q1 2027). Supporting external researchers involves:
  - Signing data sharing agreements
  - Providing access to research tools and data
  - Allowing external researchers to conduct 3-5 experiments in their platform, and
  - Ensuring that external researchers have access to necessary documentation and technical assistance to conduct their investigations.
- Funded DLPs will have the option to participate in selection of third party researchers.
- All grantees are expected to:
  - Participate in virtual community convenings to build relationships and share learning.
  - Prepare and present a poster at a Gates Foundation event (travel to the event will be supported by the Gates Foundation).
  - Distribute research results publicly, ideally using open science approaches that include pre-registration of studies, openly licensed and reproducible analytical code, derivative data sharing, and other techniques where feasible and appropriate.

Proposal Guidance

Proposals should be 3-4 pages long, including the abstract, but not including CVs and references. The proposal should not exceed 2,000 words.

Abstract/Summary: Provide a brief description of your DLP, include your plans to incorporate A/B testing in your product development, share some examples of features or research questions you wish to explore with A/B testing, and describe your data instrumentation and planned outcomes measures.

Significance: Describe how your proposed project might contribute insights about ways to improve students' learning outcomes and/or to establish the relevance and usefulness of digital learning platforms as research infrastructure. Why is this project important? How does your project fit with the goals of AIMS EduData? Ideal candidates will have an interest in applying research conducted on their

platforms to support student motivation, engagement, and persistence, and/or improving teachers' effective use of time.

If effective, this section will enable a proposal reviewer to know why the DLP is well positioned to support novel research to improve mathematics teaching and learning.

Research Partnership: For the future research oriented RFP and partnership with external researchers, describe how you will support researchers working with your platform. Describe what types of learner outcomes can be measured in your platform, and what types of data researchers can use. How will you incorporate research findings into your product roadmap?

Describe any barriers you might encounter, and what steps you might take to overcome those barriers. Provide an estimated timeline for your project.

Plans should describe approaches to reproducibility and dissemination of results, ideally using open science methods consistent with the Gates Foundation Open Access Policy.

A proposal reviewer will have a clear understanding of how you will support future researchers and how you anticipate incorporating research findings into your platform.

DLP Readiness: Provide a brief overview of your DLP and describe how your DLP is positioned to take advantage of UpGrade to enable product feature development and new research. Describe your user base, such as number and characteristics of active users and types of settings and use cases (e.g., formal vs. informal education, use in Tier 1 or Tier 2 interventions). Explain how the size and engagement of your user base would support statistically robust research studies. Elaborate on the types of questions you would like to address with UpGrade, or would like to see other third party researchers investigate in your platform (if not covered above). Describe what variables / indicators are currently captured in your system log data and how these would be used in addressing product development and/or research questions.

Describe any data security and/or privacy measures you have in place, and how you would safeguard learner data when working with external researchers. Describe your capacity to execute DSAs data sharing agreements with future external researchers.

A proposal reviewer will be able to discern if your DLP has sufficient users and capabilities to take advantage of UpGrade and whether the project is likely to lead to important discoveries.

Personnel and Resources: Describe the personnel and other resources you would need to conduct your project successfully and demonstrate that you have access to these skills and resources through existing means or through use of grant funds. Explain what systems and procedures you would use to ensure secure data transfer and storage. State your DLPs policies or plans for ensuring data security.

Budget (outside the 2,000 word limit): Provide a budget using the template described below, making adaptations as needed to fit your project.

Note that acceptable use of funds includes:

- Staff time, including course buy outs or summer salary. **Consider staff time both for the initial Upgrade integration and to support future researchers.**
- Equipment and computational resources, (including devices, internet access, privacy-compliant analytical applications, cloud computing power, and storage)
- Institutional overhead up to a maximum of 15% per requirements established by the Gates Foundation (10% for universities)

You can include additional narrative outside the 2000 word limit if necessary to further justify your budget (beyond the explanation in the Resources section).

What to Submit
Your submission should include:

- An abstract or summary of your project and narrative addressing the topics above, not exceeding 2000 words (including the abstract)
- Citations
- Resume or CVs for the PI/project leader and any other key staff
- Sample system data (can be synthetic - the goal is to determine that your system is instrumented to capture student outcome metrics)
- Budget in the template provided along with any additional justification. Download a copy of the template and save your version with the file name convention PI LAST NAME_BUDGET.XLS.

Eligibility Criteria
This opportunity is open to any U.S.-based digital learning platform, whether in a non-profit organization, a for-profit organization, or government agency

Individuals may not submit more than one application.

Evaluation Criteria
Proposals will be assessed on four main criteria:

- Significance, explaining the value of the proposed project.
- Research Partnership, including your capacity to support researchers in conducting studies with your platform.
- DLP Readiness, including both how your DLP is positioned to take advantage of this opportunity and the kinds of research your platform is able to support.
- Resources, reasonable and appropriate use of resources available to you both from this grant and in your context.

Please send inquiries about this opportunity to aimsedudata@digitalpromise.org. We will also offer office hours to respond to questions about the RFP.

Appendix A: Description of Current AIMS EduData Digital Learning Platforms

DLP Research Dataset Provider	Description
Khan Academy	A nonprofit organization providing free online instructional resources, will enable research using an anonymized dataset featuring item-level performance on approximately 150 skills in the 6th grade math course.
Curriculum Associates	A provider of K-12 adaptive assessments and personalized instruction, will provide opportunities for researchers to answer questions using de-identified data from the i-Ready suite of assessments and instruction.
University of Florida Lastinger Center for Learning	Enables research with student data from MathNation, an online middle and high school mathematics curriculum, along with teacher data from the Math Matrix Micro-Credential, an asynchronous, competency-based online professional learning system for K-12 mathematics educators.
OpenStax RAISE Algebra I Curriculum	An innovative curriculum designed to improve Algebra 1 teaching and student learning. Will support research with teaching and learning data from OpenStax's RAISE Algebra curriculum and additional survey responses on psychosocial constructs.