

New Research Opportunity: Conduct Experiments with *RightOn Education* or *Teachley Math*

Due: August 28, 2026

This solicitation offers an opportunity for up to two researchers/teams to design and implement experiments with one of two Digital Learning Platforms: *Teachley Math* and *RightOn Education* (proposals should specify which platform they would like to work with). **All applicants for this solicitation should have an existing relationship with a school district, afterschool program, or “out-of-school” partner who agrees to implement the platform and participate in an experiment** (ideally with an existing IRB exemption or letter of determination allowing for randomization/experimentation of edtech features).

Researchers and educators are invited to submit proposals to conduct research with *Teachley Math* or *RightOn Education* to uncover new insights into math education. These platforms include data that provide potential insights into the processes of student motivation, engagement, persistence, and math learning. In order to write a competitive proposal, it is essential to visit the Digital Learning Platform (DLP) catalog, [which you can access here](#).

We especially invite early career researchers and educators, including tenure-track faculty, postdocs, graduate students, researchers within non-profit organizations, district staff with research roles, and researchers located at minority serving institutions or Title I schools. In addition to providing funding, grantees will be involved in a community of practice and engage with staff from Carnegie Learning, *Teachley Math* or *RightOn Education*, with each other, and with the broader [AIMS Collaboratory](#) network, providing opportunities for awardees to grow their professional network, research skills and results, and knowledge.

This Opportunity

This solicitation offers an opportunity to design and implement experiments with one of two DLPs: *Teachley Math* and *RightOn Education* (proposals should specify which DLP they would like to work with). To conduct this research, grantees will design and implement at least three experiments with the DLP over the funding period, and gain access to the data created by these experiments. Grantees must comply with IRB, privacy, and data use policies and procedures established by each DLP and educator partner, in accordance with applicable state and federal laws and regulations.

Both DLPs included within this RFP integrated the [UpGrade](#) tool developed and managed by Carnegie Learning. *UpGrade* allows DLPs to implement experimental designs (or A/B tests), including randomization, in their platforms. This opportunity is open to all types of research

questions and methods including exploratory projects, measurement and evaluation studies. We are particularly interested to understand the conditions and features through which DLPs can foster student motivation, engagement, and persistence in learning math. We also welcome proposals with mutual value to researchers, educators and DLPs, including analyzing how DLP features could help engage in known effective teaching and learning practices based on the data in a DLP. **Due to the time frame for this initiative, we will only consider applicants with an existing partnership with a K-12 district that allows the implementation of Teachley Math or RightOn Education in an experimental setting.**

In our experience, there is a learning curve for researchers and educators entering collaborations with DLPs and gaining familiarity with their applications. As such, we encourage applicants to think of these grants as opportunities to explore what is feasible with these DLPs, potentially laying the groundwork for subsequent further grant proposals to this program or other funders. We also welcome partnerships of educators and researchers who have already done the feasibility work to indicate their readiness to begin research.

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 DLPs. AIMS EduData was launched in spring 2025 to open up opportunities for external researchers and research-practice partnerships to access these tools and platforms to conduct further research on these developed research platforms, providing access to data and experimental capabilities that have been difficult to access in conventional research settings.

In partnership with other efforts like [SEERNet](#), the AIMS EduData initiative is part of a broader movement to increase the pace of discovery and innovation in US education. 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. DLPs often collect far more data than their internal research teams have the capacity to analyze. 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. DLPs have developed tools and methods that enable external researchers to gain access to system log data, including newly instrumented learning activities, research data dashboards, and new datasets. Across the AIMS EduData initiative, the initial cohort of [research partners](#) received grants in summer 2025, and a second cohort of 26 teams is launching studies this summer. This opportunity funds two additional researchers/teams to launch studies with the partner DLPs.

We invite new proposals to suggest potential insights about how to use these new data and tools to enable new discoveries in math teaching and learning. Funded projects can contribute to the education R&D movement by expanding its capacity and skills, providing feedback to DLPs about the utility of their datasets and insights about their features, and demonstrating the affordances and value of conducting research through DLPs.

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 theory and 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 anticipate opening new calls for proposals roughly every six months.

All research will require completion of ethical and legal data usage requirements, including IRB applications, privacy requirements, and data use policies and procedures established by each DLP.

What makes for a strong proposal

In previous rounds, stronger proposals built on prior research and had a theory-driven line of inquiry to advance the knowledge frontier. These applicants typically deeply reviewed the information provided through the DLP catalog and were prepared to ask questions during DLP office hours. These teams were able as a result to develop research proposals that were targeted to questions of interest and were feasible with the data and tools available. Proposals that were not funded often did not go beyond a descriptive analysis of the data, lacked a theoretical perspective, were not high value for the DLP, or did not have the potential to generate new knowledge. We welcome replication studies provided they recognize previous research and provide a rationale.

Appendix A provides a detailed description of funding opportunities for this solicitation.

Description of Grant Opportunity and Expectations

This solicitation offers grants of up to \$50,000 and one proposal per platform. Two awards are available.

Earliest starting date: September 14, 2026

This solicitation offers opportunities to run experiments in two DLPs. One enables research with *Teachley Math*, an intervention that includes interactive digital games and problem-solving modeling tools, lessons and formative assessment data for students in grades K-5. The second enables research with *RightOn Education*, an online digital learning platform for grades 7-10 that allows teachers to create or select math games, engage students in feedback and reflection on their thinking, and access real-time information about student misconceptions. These activities are designed to support learning from errors, foster a collaborative classroom culture, and strengthen students' sense of belonging and math self-efficacy. Both *Teachley Math* and *RightOn Education* integrated the [UpGrade](#) tool developed and managed by Carnegie Learning. *UpGrade* allows DLPs to implement experimental designs (or A/B tests), including randomization, in their platforms. This opportunity is open to all types of research questions and methods including exploratory projects, measurement and evaluation studies. Researchers will be required to run at least 3 studies in the platforms (simultaneously or sequentially) over the funding period.

Scenarios:

- 1) Conduct experiments with an education partner that already uses DLP and has an existing IRB.
- 2) Conduct experiments with an education partner that the researcher already has a relationship with but will need to submit an amendment to an existing IRB protocol and receive a letter of determination and involve a new implementation of the DLP.

Teachley Math is particularly interested in research investigating:

- Through what mechanisms does feedback shape outcomes?
- What sequences of tool actions best predict eventual correctness?
- What are common error patterns and do they vary by grade level?
- Do process measures add predictive validity beyond final-answer accuracy?

RightOn Education is particularly interested in research investigating questions related to the following areas (illustrative research questions are provided below):

- Student confidence and math self-efficacy: How do patterns of student confidence differ across correct and incorrect responses, and how do they vary by question or Common Core standard?
- Productive struggle, metacognition, and learning from misconceptions: How do different types of reflection prompts (e.g., self-directed vs. peer-directed explanations) affect the likelihood of optional hint submission and the length of student-generated hints?
- Student motivation and engagement: How do different incentive conditions influence student participation in optional activities, and how are they associated with student correctness and confidence?

Successful applicants will be expected to:

- Design and deploy at least 3 experiments within the platforms and present findings to the AIMS community.
- Submit a final report describing the research activities, methods used, findings, and implications for the DLP (e.g., incorporating results into the DLP's product roadmap, if applicable) and for future research (including what further proposals are being contemplated, if applicable). If research results in new discoveries, recipients should write up their findings and make them publicly available, ideally in a peer-reviewed journal.
- Participate in monthly virtual community convenings to build relationships and share learning.
- Prepare and present a poster at a virtual community convening and/or 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.

IMPORTANT: Refer to pages 8-10 for specific grants available for each DLP.

Proposal guidance

Proposals should be 3-4 pages long, including the abstract, but not including CVs and references. The proposal should not exceed 2000 words.

Abstract / summary - provide a brief summary of your proposed research project, summarizing the elements described below.

Significance - describe why is this project important? How does your project fit with the goals of the DLP? (The latter is very important!). How does the proposed project contribute to insights about how to improve students' math achievement and/or to establish the relevance and usefulness of digital learning platforms as research infrastructure.

If effective, this section will enable a proposal reviewer to know why the project is important for the improvement of mathematics teaching and learning, how it fits the goals of the DLP and, if applicable, how it could benefit the district partner.

Research Design and Analytic Plan - What research questions will you address, and what do you hope to learn more broadly? Describe your proposed research design in detail so that reviewers can determine whether or not this design aligns with the opportunities afforded by the DLP. Include clear explanations of what conditions will be assigned, the level at which assignment will occur (e.g., groups of students, classrooms, individual students), proposed outcomes, and a proposed timeline. Describe your proposed analytic plan and the analytic methods you will employ. Describe what learner outcomes you will examine and how these methods will enable you to address your research questions. How does your research leverage the specific data provided by the DLP and the experiments?

Describe any barriers you might encounter, and what steps you might take to overcome those barriers. Because some of the work will involve discovering what is possible and not possible with the available data, you can describe the initial feasibility questions you will explore and possible adjustments you will make depending on what you learn. 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](#).

Proposals should briefly note the education partner to be involved, and how any data collected outside the DLP will be integrated with DLP data for analysis.

A proposal reviewer should have a clear understanding of the research you seek to do and how you will do it, including how you will resolve issues of feasibility.

Career and Partnership growth - How will participation in the AIMS EduData initiative contribute to your career growth? What demonstrated skills and knowledge could you apply to this project? What new skills or knowledge do you hope to gain? How might belonging to the AIMS Collaboratory and this cohort of researchers open up new possibilities for your career?

Describe how schools/educators participating in the study will benefit.

A proposal reviewer should be able to discern if you are capable of doing this research and will learn how it will advance your career (or partnership) in important ways.

Resources - Describe the personnel, consultants, travel, equipment, facilities and other resources you would need to conduct your project successfully and demonstrate that you have access to these 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 how you will comply with data security and human subjects research requirements and execute data

sharing agreements. You MUST provide a letter of support from the education partner indicating their intention to collaborate.

A proposal reviewer should have confidence that you have access to the skills, facilities and resources needed to do the research.

Budget (outside the 2000 word limit)

Provide a budget using the [template](#) described below.

Note that acceptable use of funds includes:

- Researcher and/or educator time, including course buy outs or summer salary.
- Consulting fees or a stipend for a senior researcher for mentorship and guidance on the research, and/or a research assistant or postdoc for support.
- Compensation in the form of stipends or other incentives for schools and/or educators, including professional development activities if necessary to ensure success of the research (if included, explain how you will administer these funds)
- Up to 2 professional conferences relevant to the research project.
- Equipment and computational resources, (including devices, internet access, privacy-compliant analytical applications, computing power, and storage)
- IRB review and legal support for data sharing agreements
- Institutional overhead up to limits established by the Gates Foundation (0% for government agencies, 10% for colleges and universities, 15% non-profits and for profits (see https://docs.gatesfoundation.org/documents/indirect_cost_policy.pdf))

You can include additional narrative outside the 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 and any other key staff
- Early career scholars (graduate students and postdocs) MUST include a letter of commitment from a faculty advisor at your institution who can help to navigate the process to obtain IRB approval and data sharing agreements, and to ensure smooth execution of grant agreements and receipt of funds. The letter must have a specific commitment to an amount of time.
- You MUST provide a letter of support from your existing education partner indicating their intention to participate in this research during the 2026-2027 school year.
- 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 applicant(s), whether in a non-profit organization, for-profit organization, or educational/government agency. These may include individuals submitting on their own behalf, 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. Prior to award, applicants must establish their ability to complete necessary IRB, MOUs, Data Sharing Agreements and to comply with data security requirements.

We are especially interested in receiving proposals from the following types of proposers: graduate students and early career professionals, educators with research roles, such as those working in district research offices, research-practice partnerships, and researchers located at minority serving institutions or Title I school districts.

Individuals may not submit more than one application.

Evaluation Criteria

Proposals will be assessed on four main criteria:

- Significance, explaining the value of the research in relation to the stated priorities and including why the chosen DLP is a good fit for realizing that value.
- Research Plan, including both the strength of the plan, but also awareness of feasibility and contingencies you will need to resolve as you go.
- Career or Growth, including both how you are positioned to do this research and how the funds will enable growth of your career or growth of a valuable partnership.
- Resources, access to needed expertise and institutional support, and reasonable and appropriate use of resources available to you both from this grant and in your context.

An FAQ will be available at <http://aimsedudata.org>. We will also offer office hours to respond to questions about the RFP.

Appendix A: Description of Digital Learning Platforms and Priority Research Topics

DLP Research Dataset Provider	Description of data and intervention design	Priority Topics of Interest	Funding available	Type of project (period)
Teachley Math	<i>Teachley Math</i> is a K-5 intervention that includes web-based problem modeling tools (number lines, tape diagrams, area models) that students use to solve story problems. The environment captures granular student data such as, engagement (time on task, modeling actions, action counts), student persistence (problem completion, revision behavior, time spent on a problem) and student performance (accuracy). Under business as usual conditions teachers see student accuracy on their dashboard but students do not receive in-app feedback. After integrating <i>UpGrade</i>, <i>Teachley Math</i> can now randomize clusters of students within classrooms/tutoring groups into one of 3 feedback conditions: <i>Model feedback</i> - Checklist evaluating the student's model. <i>Answer feedback</i> - Correctness indicators (checkmark/X) displayed after answering <i>Combined feedback</i> - Both model and answer feedback Researchers will have access to data from the 3 feedback conditions as well as baseline data	Questions related to <i>Instructional Design & Efficacy</i> - How do feedback effects vary across grade levels, problem schemas and baseline student performance? - Does intervention-teacher vs. classroom-teacher vs. tutor instruction moderate the impact of in-app feedback on student outcomes? - Through what mechanisms does feedback shape outcomes — does it change which models students construct, how persistently they revise, or both? Questions related to <i>Learning Analytics & Prediction</i> - Which sequences of tool actions best predict eventual correctness? - Can early model-construction	Up to \$50,000	6 - 12 months

	from the same students prior to the randomization.	behaviors predict which students will need additional support, and does feedback condition change those early signals? Questions related to <i>Knowledge Modeling & Cognition</i> • How does students' choice of representation vary by problem schema, and which are associated with higher success? • What are common error patterns and how do these shift across grade levels? Questions related to <i>Assessment & Measurement</i>: • To what extent do process measures add predictive validity beyond final-answer accuracy?		
RightOn Education	<i>RightOn Education</i> allows middle and high school math teachers to create or choose math activities to use during class time. Teachers receive actionable insights related to student misconceptions and performance. RightOn captures student- and teacher-level data. Student-level data includes interaction logs (time on task, response timing, retries), student text	Questions related to <i>Student Confidence and Math Self-Efficacy</i> • How do patterns of student confidence differ across correct and incorrect responses, and how do	Up to \$50,000	6 - 12 months

	responses (e.g., explanations, student generated hints written for themselves or peers, reflections), and error-based actions (incorrect answer selection, revisions, hint use). Teacher-level data includes, interaction logs (review time, selected next steps, prompt usage) and contextual meta data. After integrating <i>UpGrade</i>, <i>RightOn Education</i> is able to randomize students and teachers to different types of activities/features, such as: a) <i>Student participation incentives:</i> Students receive different incentive conditions for completing optional activities, enabling researchers to examine effects on participation, performance, and confidence b) <i>Reflection prompt framing:</i> Students receive different reflection prompts (e.g., self-directed versus peer-directed explanations) to examine effects on optional hint submission and the quality of student-generated hints. Researchers will have access to data from these conditions as well as baseline data from the same students prior to the randomized introduction of feedback.	they vary by question or Common Core standard? <i>Questions related to Productive Struggle, Metacognition, and Learning from Misconceptions</i> • How do different types of reflection prompts (e.g., self-directed vs. peer-directed explanations) affect the likelihood of optional hint submission and the length of student-generated hints? <i>Questions related to Student Motivation and Engagement</i> • How do different incentive conditions influence student participation in optional activities, and how are they associated with student correctness and confidence?		
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