



Alliance For
Learning
Innovation

Investing in R&D for Safe and Effective AI in Education:

Federal Policy Recommendations



October 2026



Table of Contents

01 INTRODUCTION

07 RECOMMENDATIONS TO CONGRESS

11 RECOMMENDATIONS TO THE ADMINISTRATION

15 CONCLUSION

16 ACKNOWLEDGMENTS

INTRODUCTION

An Urgent Need

American classrooms have entered the age of artificial intelligence (AI). Thoughtfully designed AI, guided by skilled educators, offers exciting new ways to develop the academic and durable skills students need to thrive in work and life. However, general-purpose AI incorporated carelessly into classrooms not only fails to enhance learning, but can cause harm. It could serve as a distraction, a deterrent to forming meaningful relationships, a purveyor of misinformation, or an enabler of cognitive offloading. A 2026 Brookings report describes the stark difference in outcomes as AI-enriched versus AI-diminished learning.¹

Sentiment about AI and its potential impact on young people ranges from enthusiasm to uncertainty to skepticism. According to the School Pulse Panel from the Institute of Education Sciences, only 38 percent of school leaders agree that integrating AI tools into teaching and learning will lead to better educational outcomes for their students; and just 39 percent believe it will help their students build critical thinking skills.² Yet, the panel also shows that more public school leaders have a favorable view of students using AI for learning than those who have an unfavorable view; and 72 percent of teachers agree that using AI tools for teaching and learning will make their profession easier.³ A Center on Reinventing Public Education survey indicates that the majority of parents (62 percent) are concerned that students using generative AI (GenAI) will not build basic skills that are foundational to learning; but the same survey reveals that only 25 percent of parents say schools should prohibit student use of GenAI.⁴

Young people share adults' ambivalence about AI. A Gallup-Walton Family Foundation survey found that four out of 10 members of Generation Z report feeling uneasy about the rapidly evolving technology, and 31 percent of them feel outright angry about it (up from 22 percent last year).⁵ Most Gen Zers (80 percent) believe that relying on AI is likely to make learning more difficult in the future.⁶ Yet, the same survey shows a growing proportion of Gen Zers believe they will need to know how to use AI if they pursue a post-secondary education.⁷

¹ Burns, M., Winthrop, R., Luther, N., Venetis, E., & Karim, R. "A New Direction for Students in an AI World: Prosper, Prepare, Protect" (January 2026). <https://www.brookings.edu/articles/a-new-direction-for-students-in-an-ai-world-prosper-prepare-protect/>

² Institute of Education Sciences. "More than Half of Public School Leaders Say Cell Phones Hurt Academic Performance" (February 19, 2025). <https://ies.ed.gov/learn/press-release/more-half-public-school-leaders-say-cell-phones-hurt-academic-performance>

³ Ibid.

⁴ Polikoff, M., Rapaport, A., & Fast, N. "What Do Parents Know about Generative AI in Schools?" (January 2025). <https://crpe.org/what-do-parents-know-about-generative-ai-in-schools/>

⁵ "New Hire Readiness Report 2025: Insights from Hiring Managers on Entry-Level Workforce Preparedness" <https://news.gallup.com/poll/708224/gen-adoption-steady-skepticism-climbs.aspx>

⁶ Ibid.

⁷ Ibid.

As a whole, today's education system is underprepared to safely integrate AI into schools and maximize its positive potential. It is not consistently providing teachers and other school personnel with proper AI training; guiding educators and students with clear AI policies; or adequately vetting the AI-powered tools schools procure. Nearly four years after GenAI's emergence in popular culture, 42 percent of teachers still have not been trained on how to use it in the classroom.⁸ Educators are not only lacking proper AI training, but also school policies to guide their AI usage. As of 2025, only 31 percent of public school leaders reported that their school or district had written AI policies.⁹ Concerningly, principals in high-poverty districts are less likely to receive AI guidance than those in low-poverty districts.¹⁰ School district leaders also lack resources to vet AI-powered ed tech for safety, efficacy, fairness, and accessibility. Without sufficient training, policies, or resources nationwide, AI-enriched learning will continue to exist only in pockets of the U.S.

Underlying all of these issues is a lack of robust and timely research on how to incorporate AI safely, responsibly, and effectively in education. While there is a strong research base in education generally about what works, for whom, and under which conditions, research on the use of AI, specifically, is nascent. Earlier this year, Stanford's SCALE Initiative analyzed its repository of over 800 academic papers related to AI in K-12 education. Only 20 of those papers produced strong causal evidence — and none of the student-facing causal studies were conducted in U.S. K-12 school settings.¹¹ Without a broad, accessible research and evidence base that clarifies how teachers should integrate AI into their classrooms, how schools should regulate AI, and which AI-powered ed tech schools can rely on, it's no wonder the U.S. education system is not yet ready to ensure young people will flourish in the age of AI.

The Opportunity

More expansive and rigorous research on AI for teaching and learning will help answer key questions: "How can AI be a force for good? Can it support young people to live meaningful lives and flourish in a rapidly changing world?" It will enable better educator training, lead to informed school policies, and shed light on safe and effective AI tools. Most importantly, a robust and continuously updated body of research, shared in usable formats for practitioners and state and local policymakers, will inform the development of higher-quality AI tools and drive better student outcomes.

The limited research that exists is already surfacing insights that will shape the future of AI's role in teaching and learning. A 2026 OECD report on exploring effective uses of GenAI in education found that, when educational GenAI is grounded in learning science, co-designed with teachers and students, and used purposefully for pedagogical reasons, it can move the needle on learning.¹²

⁸ Heubeck, E. "More Schools Are Providing AI Training for Teachers. Is It Any Good?" (May 18, 2026).

<https://www.edweek.org/technology/more-schools-are-providing-ai-training-for-teachers-is-it-any-good/2026/05>

⁹ Institute of Education Sciences. "More than Half of Public School Leaders Say Cell Phones Hurt Academic Performance" (February 19, 2025).

<https://ies.ed.gov/learn/press-release/more-half-public-school-leaders-say-cell-phones-hurt-academic-performance>

¹⁰ Kaufman, J., Woo, A., Eagan, J., Lee, S., & Kassan, E. "Uneven Adoption of Artificial Intelligence Tools Among U.S. Teachers and Principals in the 2023–2024 School Year" (2025). https://www.rand.org/pubs/research_reports/RRA134-25.html

¹¹ Fesler, L., Martinez Claeys, J., Agnew, C., & Loeb, S. "The Evidence Base on AI in K-12: A 2026 Review" (March 2026).

<https://scale.stanford.edu/sites/default/files/The%20Evidence%20Base%20on%20AI%20in%20K-12%20Report.pdf>

¹² OECD. "OECD Digital Education Outlook 2026: Exploring Effective Uses of Generative AI in Education" (2026). <https://doi.org/10.1787/062a7394-en>

Stanford's 2026 review of causal AI in education studies produced findings that similarly emphasized the need for strong pedagogical guardrails. The review indicates that student performance on certain tasks improves when they can access AI tools; but when assessed without AI support, some students' performance worsens. Tools, like Eedi's AI Tutor, that are designed with guardrails (e.g., offering step-by-step reasoning rather than direct answers) appear better able to support more durable or independent learning than general-purpose AI tools applied in educational settings.

The Stanford review also examined studies on educators' AI usage and found that AI tools can be beneficial for efficient, high-quality lesson preparation and for getting regular feedback on student learning. While the body of research on how educators can best leverage AI is not yet robust, it's beginning to generate findings that can help teachers harness AI more productively.

Research on AI in education needs to grow not only because it is thin but because AI's capabilities are evolving rapidly, and research must keep pace. The 2026 Brookings report asserts, "the education community will need to regularly produce and use evidence on AI's influence on students' cognitive, affective, motivational, and emotional states."¹³ This is imperative for protecting young people from the risks of AI. Equipped with the latest evidence on what facilitates AI-enriched learning, for whom, and in what conditions, education stakeholders in communities across the U.S. will be better positioned to get the best out of AI for the students it is intended to serve.



¹³ Burns, M., Winthrop, R., Luther, N., Venetis, E., & Karim, R. "A New Direction for Students in an AI World: Prosper, Prepare, Protect" (January 2026). <https://www.brookings.edu/articles/a-new-direction-for-students-in-an-ai-world-prosper-prepare-protect>

Federal R&D to Facilitate AI-Enriched Learning

Federal policymakers have an opportunity to build on and coordinate their investments in education research and development (R&D) to explore the safe and effective applications of AI for teaching and learning. Through initiatives like Accelerate, Transform, and Scale at the Institute of Education Sciences (IES) and the National AI Research Institutes at the U.S. National Science Foundation (NSF), the federal government has funded important but limited R&D around AI in education. Now, greater federal investments are needed to generate high-quality, actionable research on AI for teaching and learning, as well as gain continuous insights into a quickly evolving technology.

The Alliance for Learning Innovation (ALI) urges Congress and the Trump Administration to:

- Build a stronger evidence base for safe and effective AI in education;
- Improve AI-enabled tools and approaches in education;
- Build infrastructure to facilitate better AI-in-education R&D;
- Coordinate and carry out a unified AI-in-education R&D agenda; and
- Leverage AI to make federal R&D investments more effective and transparent.



A Federal AI R&D Strategy for Brighter Futures

Five actions. Stronger evidence. Smarter decisions. Better outcomes for every student.

Federal Policy Recommendations

Build a stronger evidence base for AI in education.

- 1 Invest in rigorous research, evaluation, and data to understand what works, for whom, and under what conditions.

Improve AI-enabled tools and approaches in education.

- 2 Support the development, testing, and refinement of AI tools and approaches that are effective, safe, and scalable.

Build infrastructure to facilitate better AI-in-education R&D.

- 3 Create the data, technical, and human infrastructure needed to accelerate responsible AI R&D and adoption.

Coordinate and carry out a unified AI-in-education R&D agenda.

- 4 Align federal agencies, investments, and initiatives to set shared priorities, reduce fragmentation, and maximize impact.

Leverage AI to make federal R&D investments more effective and transparent.

- 5 Use AI to improve how federal education R&D is planned, managed, and evaluated, increasing impact, accountability, and transparency.

Empower States and School Districts

With the evidence, tools, and support they need



Access credible evidence and guidance



Adopt and scale effective AI solutions



Leverage AI safely, competently, and confidently



Continuously learn and improve

Brighter Opportunities for Students and Families



Higher achievement



Improved well-being and engagement



Better preparation for the future workforce



Greater economic opportunity

In doing so, the federal government will empower states and school districts with the evidence, tools, and support they need to create brighter futures for students and families. These federal investments and policy changes will help communities access credible evidence and guidance; adopt and scale effective AI solutions; leverage AI safely, competently, and confidently; and engage in continuous learning and improvement. As a result, students are more likely to experience higher achievement, improved well-being, and stronger engagement; and be better prepared for future success.

Made up of over 150 public and observing members, ALI is a bipartisan coalition calling for more effective, innovative, and community-centered R&D — particularly in areas of critical importance for U.S. education. Congress and the Trump Administration must prioritize R&D at the intersection of AI and education, considering the pressing need to understand and take control of AI's risks and opportunities when applied to teaching and learning. With AI deployed responsibly and effectively in U.S. classrooms, American students will be better equipped with the knowledge and durable skills they need to flourish in the workforce of the future, and in life.

The recommendations put forward in this brief focus on strengthening and coordinating federal investments in R&D that will deepen our understanding of how to leverage AI for the benefit of students, teachers, and school administrators. They build upon our *Blueprint for the Future of the Federal Role in K-12 Education R&D*¹⁴ and federal policy recommendations for *Leveraging Education R&D to Support High-Quality Career-Connected Learning*.¹⁵

While federal support for AI literacy among students and educators is also important, this set of recommendations does not explicitly address that topic. We look forward to working with federal policymakers to advance these recommendations and build a stronger, more actionable base of evidence to inform safe and effective integration of AI in schools across the U.S.



¹⁴ Alliance for Learning Innovation. "Blueprint for the Future of the Federal Role in K-12 Education R&D" (May 2025). <https://www.alicoalition.org/publications/blueprint-for-the-future-of-education-rd/>

¹⁵ Alliance for Learning Innovation. "Leveraging Education R&D to Support High-Quality Career-Connected Learning: Federal Policy Recommendations" (June 2026). <https://www.alicoalition.org/publications/ccl/>

RECOMMENDATIONS TO CONGRESS

Congressional lawmakers have a responsibility to shape a safe and productive AI future. They are uniquely positioned to do so by making critical R&D investments. ALI encourages Congress to revitalize and sustain high-impact AI-in-education R&D programs, as well as build new infrastructure to facilitate R&D around AI in teaching and learning.

Existing programs at IES and NSF that support this type of R&D are valuable but small in scope and must be expanded and adequately funded. At the same time, there are gaps in the education R&D ecosystem the federal government must fill to advance AI-in-education R&D and ensure the U.S. remains globally competitive: an Advanced Research Projects Agency (ARPA) dedicated to education breakthroughs, shared public infrastructure to foster AI research and innovation in education, education-specific AI testbeds and datasets, and AI implementation grants states can use to infuse their schools with evidence-backed AI tools and approaches. With strategic, deliberate R&D investments, the U.S. can maintain its leadership in AI innovation and strengthen national security as countries like China advance in the AI race.

CONGRESS SHOULD:

Refresh, expand, and fund existing AI-in-education R&D programs to build a stronger evidence base and develop high-quality AI tools

1

Grow and fund the Accelerate, Transform, & Scale Initiative (ATS) at IES. Inspired by ARPAs that develop and scale breakthrough innovations, the ATS Initiative invests in ambitious, evidence-backed ideas with the potential to transform education. Through this unique IES effort, interdisciplinary teams target seemingly intractable challenges in education and harness the latest technologies, especially AI, to solve them. The ATS Initiative fuels AI in education research and innovation through programs like:

- Using Generative Artificial Intelligence to Augment Teaching and Learning in Classrooms (U-GAIN), whose R&D Centers provide national leadership on the use of GenAI to improve teaching and learning.
- From Seedlings to Scale (S2S) Program, which supports innovative ideas within an identified focus area through three phases of staged funding to grow scalable solutions. S2S is an ideal model for AI-in-education R&D because the field is relatively new and evolving rapidly, and this program only provides Phase Two funding to innovations with a compelling rationale for further investment and a detailed R&D plan to generate evidence of impact. Phase Three support focuses on evaluating impact across multiple settings and contexts.

- Transformative Research in the Education Sciences Grants Program, which invests in high-potential, high-impact research to solve large, complex problems in education. This program has recently focused on AI-powered breakthroughs and should continue to maintain a focus on unlocking the possibilities of AI in education.

2

Establish new NSF-IES National AI Research Institutes to build a network of cutting-edge AI in education research centers across the U.S. NSF and IES have co-funded two National AI Research Institutes: the National AI Institute for Exceptional Education (led by the University at Buffalo) and the AI Institute for Innovative Intelligent Technologies for Education,¹⁶ or INVITE (led by the University of Illinois Urbana-Champaign). These institutes are inventing new AI systems, tools, and approaches to solve steep challenges in education: the critical shortage of speech-language pathologists in school settings and a lack of attention to the “noncognitive” learning skills (e.g., persistence) students need to thrive in STEM. The successful pilot of the National AI Research Institutes model should be scaled to address additional challenges in education that AI is well-positioned to solve. When NSF and IES co-fund these projects, this improves coordination and communication across the education R&D ecosystem.

3

Continue to fund the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs at NSF and SBIR at IES. These essential programs help startups and small businesses develop research-backed technologies, including those harnessing AI, into innovations with widespread societal impact. They build a robust engine for innovation in the private sector by supporting small businesses. Additionally, these programs play a key role in the education R&D ecosystem, bridging the gap between R&D and scalable, commercially viable ed tech. As AI capabilities in education expand, it’s important for Congress to make SBIR and STTR grants available for promising AI-powered educational tools.

4

Sustain the Discovery Research PreK-12 Program Resource Center on Transformative Education Research and Translation (DRK-12 RC) program at NSF. This Resource Center supports collaboration, knowledge translation, and capacity-building across applied STEM education research by connecting partners, providing technical assistance, disseminating resources, and strengthening the reach of DRK-12-funded work. This field-building and translation function can help move relevant AI-in-education findings into practice when they emerge from the broader DRK-12 portfolio.

¹⁶ Formerly called INVITE: Inclusive and Innovative Intelligent Technologies for Education

Build infrastructure to facilitate better AI-in-education R&D

5

Authorize and fund a National Center for Advanced Development in Education (NCADE) to push the frontiers of innovation in AI and education.

Congress could do this by passing the bipartisan New Essential Education Discoveries (NEED) Act (H.R. 6419, S. 5444). Modeled after the Defense Advanced Research Projects Agency (DARPA) and other ARPAs, this new Center would support informed-risk, high-reward research projects with the potential to make transformative advancements at the intersection of AI and education. Like the ATS Initiative, NCADE would facilitate interdisciplinary collaboration, bringing together experts from different sectors to solve complex problems in education. Yet, NCADE would be more ARPA-like in that it would be driven by highly talented, technically expert program managers with autonomy to actively design and manage their portfolios (unlike grant program officers). NCADE would use flexible funding mechanisms to rapidly deploy dollars to innovators and researchers tackling complex, urgent issues at the heart of AI and education. If Congress authorizes NCADE, it should build upon and replace the ATS Initiative, as it is the bolder, more nimble version of that effort. Priority areas for NCADE could be research on AI architectures that measure and maximize human potential (e.g., metacognition, creativity, resilience); machine learning models optimized for the development of durable skills and knowledge; and AI tools tailored to support students with specific learning challenges (e.g., dyslexia).

6

Authorize the National Artificial Intelligence Research Resource (NAIRR) to extend it beyond the current Administration. Led by NSF, NAIRR is a public-private initiative that provides a national public infrastructure for U.S. research and education communities, offering access to data, models, software, and other resources to advance AI innovation. Congress could sustain NAIRR by passing the bipartisan CREATE AI Act (H.R. 2385, S. 4441).

7

Establish a National AI Research Resource for Education (NAIRR-Ed) as an education-focused node within the broader NAIRR, distinct from NAIRR Classroom's existing education and training focus. NAIRR-Ed would democratize access to robust education research tools by providing secure cloud computing, high-quality education datasets, and open-source models, provided by federal agencies and private tech and industry partners.

These resources would help advance AI innovation in teaching and learning while addressing privacy and security concerns related to education research involving student data. NAIRR-Ed should prioritize datasets representing various populations, neurodiverse groups, and student-centered learning activities. The U.S. Department of Education already contributes education research and statistics datasets and expertise to NAIRR, so NAIRR-Ed should build on that role rather than duplicate it. An entity like this could also be housed within NCADE.

8

Direct and fund NSF to facilitate the development of education-specific testbeds and datasets.

NSF should create a national network of education-specific AI testbeds in districts and states across the country. These testbeds could enable rapid-cycle, student-centered R&D for promising AI-powered ed tech and offer educators, parents, and communities evidence about what works and for whom. They should link to state longitudinal data systems and support research that allows decisionmakers to know what can scale reliably. Additionally, NSF should continue to support the development of high-value, shareable datasets in education through solicitations like the Collaboratory to Advance Mathematics Education and Learning (CAMEL) for K-12. These datasets should align with FAIR principles,¹⁷ address critical questions in education, and support the development of high-quality AI-driven education tools while strictly protecting student's data (e.g., cognitive, biometric) privacy. As with NAIRR-Ed, there should be a priority placed on datasets representing varied populations, neurodiverse learners, and student-centered learning activities.

9

Direct and fund IES to offer multi-state AI implementation grants that promote the adoption and scaling of evidence-based AI tools.

IES's recent report on "Reimagining the Institute of Education Sciences: A Strategy for Relevance and Renewal" called for the prioritization of multi-state awards to help scale promising interventions.¹⁸ IES should provide AI implementation grants to a varied mix of states, allowing research-backed tools to be applied and evaluated independently in different settings. A portion of each implementation grant should support AI-specific professional learning for the educators integrating the tools into their instructional practice, as well as state staff capacity to support implementation.

¹⁷ GO FAIR Foundation. "FAIR Principles." <https://www.go-fair.org/fair-principles/>

¹⁸ Northern, A. & Opp, A. "Reimagining the Institute of Education Sciences: A Strategy for Relevance and Renewal" (February 2026). <https://ies.ed.gov/ies/2026/02/reimagining-ies>

RECOMMENDATIONS TO THE ADMINISTRATION

The Trump Administration should seize opportunities to coordinate a cross-agency R&D agenda for AI in education, and use AI to amplify the impact of its R&D investments. At IES and NSF, the Administration should make strategic organizational changes to facilitate AI tools vetting and validation, and set interoperability standards for more robust and collaborative AI-in-education R&D.

THE ADMINISTRATION SHOULD:

Coordinate across the federal government to carry out a unified AI-in education R&D agenda

1

Charge relevant federal agencies with developing a coordinated R&D agenda for AI in education through an AI Education and Workforce Council. Building on its 2025 Executive Order, *Advancing Artificial Intelligence for American Youth*, the Administration should continue to call for cross-agency coordination and investments in AI-in-education research. To advance these efforts, the Administration should convene leaders from NSF and the Departments of Education, Labor, Treasury, Energy, and Commerce as an advisory council to develop a set of shared research priorities for AI in education, as well as a coordinated plan to achieve them. To align with the Administration's wider R&D efforts, the AI-in-education R&D agenda should be consistent with the *White House Office of Science and Technology Policy's (OSTP) FY27 R&D Priorities*.¹⁹ This R&D agenda should prioritize how solutions apply and translate to the real-world settings they aim to support.

2

Promote public-private partnerships to strengthen R&D on AI in education. In *Advancing Artificial Intelligence for American Youth*, the Administration encourages public-private partnerships to create AI literacy resources and apprenticeship opportunities for American students. The Administration should also seek opportunities to foster public-private partnerships that will grow the evidence base for AI in education and drive the development and scaling of safe, evidence-backed innovations to improve teaching and learning. While the industry commitments²⁰ secured by the White House to support AI education are focused on AI literacy, a few (from Apple and Cengage Group) are facilitating AI research; more of those partnerships are needed.

¹⁹ Vought, R. "Fiscal Year (FY) 2027 Administration Research and Development Budget Priorities and Cross-Cutting Actions" (September 23, 2025). <https://www.whitehouse.gov/wp-content/uploads/2025/09/FY27-OMB-OSTP-RD-Priorities-Memo-FINALSIGNED.pdf>

²⁰ The White House. "Major Organizations Commit to Supporting AI Education" (September 9, 2025). <https://www.whitehouse.gov/releases/2025/09/major-organizations-commit-to-supporting-ai-education/>

3

For federal grants supporting R&D on AI in education, prioritize applicants that have a strong plan for co-research and co-design with educators, students, and families.

Those directly impacted by AI in education should not only be engaged in the R&D process, but also be full partners in identifying problems to solve, as well as the design, iteration, and implementation of new, AI-driven solutions. Where appropriate, co-design partnerships should include learners with disabilities and their families, and applicants should describe how the co-design process itself will be accessible to them. NSF Fostering Interdisciplinary Networks to Develop Emergent and Responsive Solutions Foundry (NSF FINDERS FOUNDRY) is a strong example of a federal funding opportunity that centers co-research and co-design with educators and families. The Administration should review its current grant opportunities supporting AI-in-education R&D (e.g., Education Innovation and Research grants, SBIR grants, grants within the ATS Initiative) and identify opportunities to make participatory R&D a grant priority.

Modernize agencies to improve AI-enabled tools and approaches

SPECIFICALLY, IES SHOULD:

4

Establish a rapid cycle evaluation framework and peer review process for AI-enabled interventions. IES's current validation cycles for the What Works Clearinghouse (WWC) take years to complete, a problem cited in its "Reimagining the Institute of Education Sciences: A Strategy for Relevance and Renewal" report.²¹ This is far too long in an era when commercial AI labs unveil new releases or significant updates to their LLMs every few months, if not more frequently. IES should create a rapid cycle evaluation framework that prioritizes real-time metrics of student learning gains, cognitive engagement, and durable skill development. This framework should guide a faster peer review process, allowing IES to validate the latest AI-powered technologies that demonstrate evidence of success. Internally, AI should be used to make administrative processes more timely and efficient.

²¹ Northern, A. & Opp, A. "Reimagining the Institute of Education Sciences: A Strategy for Relevance and Renewal" (February 2026). <https://ies.ed.gov/ies/2026/02/reimagining-ies>

5

Partner with the National Institute of Standards and Technology (NIST) to create an education-specific version of the AI Risk Management Framework.²² All too often, school districts make AI procurement decisions without knowing what constitutes a safe, effective, and ethical AI-enabled tool. Tailored for ed tech innovations and ideally aligned with EDSAFE AI Alliance's SAFE Benchmarks Framework,²³ this resource would help education leaders make more informed decisions and integrate AI responsibly in their classrooms. Criteria should address conformance with Section 508 and Web Content Accessibility Guidelines (WCAG), compatibility with assistive technologies, and the availability of multiple means of engagement, representation, and action and expression within the tool itself.

BOTH IES AND NSF SHOULD:

6

Incentivize interoperability in AI research grants. Through their grantmaking to support the development of evidence-based, AI-enabled tools, IES and NSF should encourage open standards, open APIs, and exportability to facilitate data integration. Interoperability is essential for seamless AI research collaboration, as it allows different systems to communicate, exchange data, and use shared data. IES and NSF funding for AI research should prioritize supporting open, secure, and vendor-agnostic infrastructure, while ensuring security-sensitive components and protected data remain appropriately controlled.

7

Develop and validate AI-era measures of student learning. Depending on how AI is used, it can either improve or diminish student performance,²⁴ yet many current evaluations do not distinguish durable learning from performance that was dependent on AI use. Staged funding, rapid evidence review, and state implementation grants rely on that distinction. For tools and interventions that claim to build durable skills, federally supported studies should report outcomes both while the tool is available and on a delayed assessment administered without it. Measures should be appropriate to the intervention's intended outcome, including different criteria for assistive or accessibility tools whose value may depend on continued access.

²² NIST. "AI Risk Management Framework." <https://www.nist.gov/itl/ai-risk-management-framework>

²³ EDSAFE AI Alliance. "SAFE Benchmarks Framework." <https://www.edsafeai.org/safe>

²⁴ Fesler, L., Martinez Claey, J., Agnew, C., & Loeb, S. "The Evidence Base on AI in K-12: A 2026 Review" (March 2026). <https://scale.stanford.edu/sites/default/files/The%20Evidence%20Base%20on%20AI%20in%20K-12%20Report.pdf>

Modernize agencies to improve AI-enabled tools and approaches

8

At IES and NSF, build or invest in AI-enhanced products that make education research discoverable and actionable. Current research repositories, like the WWC, can be challenging to navigate, make sense of, and translate into action. Through chatbots, sophisticated visualizations, other AI-enabled features, and AI-friendly APIs, the Administration can make education research easier to find, understand, and apply in classrooms and other educational contexts. AI can help federal evidence resources evolve from answering the question, “Is there evidence this works?” to “Is there evidence this works in contexts like mine?” AI can also help the public understand the cost of an intervention and the strength of the research base that underpins that intervention, improving the transparency and accountability of federal investments in education R&D. This recommendation is included in IES’s “Reimagining the Institute of Education Sciences: A Strategy for Relevance and Renewal” report²⁵ and should be implemented right away to close the gap between research and practice.

9

Require federally supported education research studies to be machine-readable and tagged with clear, searchable metadata. This will allow AI tools and users to easily find, organize, and highlight the findings — ultimately helping to bridge the divide between education research and real-world applications. Metadata standards for federally funded studies should capture not only results but the relevant conditions under which that result was produced. Evidence can then be matched to the contexts where it is most likely to transfer.



²⁵ Northern, A. & Opp, A. “Reimagining the Institute of Education Sciences: A Strategy for Relevance and Renewal” (February 2026). <https://ies.ed.gov/ies/2026/02/reimagining-ies>

CONCLUSION

More robust research is needed to guide the design, development, and implementation of safe and effective AI-powered interventions in U.S. classrooms. The need for rigorous, timely AI research will only grow as the technology's capabilities expand and evolve. Without targeted, federal investments and a coordinated research agenda, current efforts will fail to keep pace with advancing AI technology.

A stronger evidence base is needed to prepare the U.S. education system for an increasingly AI-driven age. Its insights will shape educators' AI training, schools' AI policies, and resources that support school districts' AI procurement decisions. Better research will surface proven practices and produce more responsible and effective educational tools. Ultimately, these investments will enhance student learning and well-being, and help set young people up to flourish as individuals, professionals, and citizens.

With its ability to make significant, sustained, and strategic investments in programs, talent, and infrastructure shaping America's future, the federal government is uniquely poised to facilitate faster, better, and more R&D examining the impacts of AI on education. The recommendations ALI has put forward are intended to guide the support Congress and the Administration deploy in this area of national urgency. Following through on these recommendations will help U.S. students, teachers, and schools understand and mitigate the risks of AI and benefit from the best that AI has to offer.



www.alicoalition.org
contact@alicoalition.org

ACKNOWLEDGMENTS

Thank you to the thought leaders, experts, coalition members, and collaborators who contributed to this brief and to Tasha Hensley and The Learning Agency for their writing and editing support.

- Alex Gibson, CAST
- Dr. Sam Catherine Johnston, CAST
- Dr. Caitlin Mills, University of Minnesota and AugmentED
- Dr. Norma Ming, Socos Labs
- Dr. Vivienne Ming, Socos Labs
- Dr. Babak Mostaghimi, LearnerStudio
- Erin Mote, InnovateEDU
- Dr. Pati Ruiz, Digital Promise
- Ji Soo Song, American Innovation Policy Forum
- Dr. Joseph South, International Society for Transforming Education (ISTE)
- Juliet Squire, Bellwether
- Dr. Melina Uncapher, SETA-ED