A 2023 look back on eight years of education technology development and grantmaking to help students and educators thrive.

Chan Zuckerberg Initiative



Great schools take a whole child approach to education. They recognize that learning is sparked by curiosity and fueled by trusted relationships. They create a culture that recognizes that the well-being of teachers and students is instrumental to an effective learning environment. And they are relentless in making sure that each student develops the knowledge, skills, habits and confidence to succeed.

Over the past eight years, CZI has made grants to help teachers and school leaders across the country reimagine education. We've also engaged educators and students to co-build research-based tools that make it easier for teachers to support overall student success. Through our unique approach that combines grantmaking with technology building, we are helping educators unlock the full potential of every student, no matter who they are or where they live in the United States.

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chanzuckerberg.com/education/impact →

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Letter from Priscilla

Dear friends.

In 2015, Mark and I wrote a letter* to our newborn daughter, Max, that said, "For your generation to live in a better world, there is so much more our generation can do." We both understood the power of education to change the trajectory of a child's life, and so, when we launched CZI, we centered our work on helping every child get an education that prepares them to reach their full potential, no matter who they are or where they live.

Today, CZI's education work is at an important inflection point.

For eight years, we have made grants to advance research on learning and human development. We have also built products and tech platforms for and with teachers — grounded in what the research says about how kids learn best — to translate those insights into classroom practice.

As you'll see in this report, thanks to our partners, the impact of this work has been felt broadly and deeply. Looking ahead, we see an incredible opportunity to further accelerate our progress.

Building Research and Tools for Educators

The more we learn about human development, the clearer it becomes that education must support the whole child — and meet each student's unique academic, social, physical and emotional needs. This is something Mark and I also experience firsthand now, while raising three young children. At CZI, we have been working to ensure the research reaches the classroom. Together with our partners, we have:

elevated underutilized highQuality research and resources
and made them more accessible to
educators. For example, the Student
Experience Research Network
published 30 scholarly working papers
and more than 70 research translation
briefs to increase awareness about how
school environments can either support
or undermine student learning and
well-being and worked with a broad
array of partners to translate these
findings into teaching practices.¹



• The Primary School - East Palo Alto, California

Letter from Priscilla

- DEVELOPED EASY-TO-USE TECH TOOLS grounded in the science of learning and human development. Reach Every Reader, for instance, created three apps that promote pre-literacy skills, highlighting the role of conversations in early childhood language development.²
- CO-DESIGNED NEW EDUCATIONAL MODELS IN PARTNERSHIP WITH EDUCATORS, STUDENTS, RESEARCHERS, AND COMMUNITIES so their insights inform solutions. In Washington, D.C., educators at Van Ness Elementary School worked with the community to create schoolwide practices that foster a safe, connected environment for children and adults. Their model is now being used across Washington, D.C., as well as other states.³
- SHIFTED STANDARDS AND MEASURES
 OF SCHOOL AND STUDENT SUCCESS TO
 SUPPORT SCHOOLS IN PRIORITIZING
 STUDENT AND EDUCATOR WELL-BEING.
 The National Board of Professional
 Teaching Standards is revising its
 standards to incorporate new findings
 in the science of learning and human
 development and is helping teachers
 implement teaching practices that
 improve student outcomes.

 Automatical Standards

 Automatical Standards

 Automatical Standards

 Automatical Standards

 **Incomplete S
- INVESTED IN EDUCATORS TO SUPPORT
 THEIR WELL-BEING AND PROFESSIONAL
 DEVELOPMENT. Through efforts like
 the One Million Teachers of Color
 Campaign, we are working to diversify
 the educator workforce.⁵

Thanks to the work of these and many other partners, more schools are embracing a whole child approach to learning. Our partners have developed tools and resources that are now reaching more than 5 million students. Our technology tools — Summit Learning and Along — have helped teachers connect with over 250,000 students and tailor learning experiences to individual student needs.

The Work Ahead

Despite important progress, many research-based resources and tools still aren't reaching students and teachers — and educators still aren't treated as the experts they are in creating these resources and tools. So, right now, we're exploring new ways to leverage our grantmaking and technology capabilities to speed up our progress. We are also looking at opportunities to leverage our investments in artificial intelligence as we co-build tools with teachers and students that are grounded in the research.

As the field of education has evolved, so has CZI's work in education. But our goal has never wavered: to unlock the potential of every child, no matter who they are or where they live.

Thank you to our team and our partners for helping us make such an impact. We are ready to continue this work with you on behalf of today's children and future generations.

With care,

Persona



CZI EDUCATION

BY THE NUMBERS

CZI-Created Tools





46 states + D.C. reached⁹



700+
conversations with educators and students to ground products in real needs¹⁰

Grants





1,000+

total number of grants made 12

CZI brings together educators and researchers into our product development to build tools that address the toughest challenges in the classroom. Education technology is most successful when it supports research-based classroom practices and teachers are engaged as co-creators. That's why we start with what learning science tells us about how kids learn best and work with teachers at every stage of development, including product design, piloting and ongoing feedback from users. We also engage and incorporate input from youth - as well as learning experts at organizations that offer diverse perspectives on education — to ensure our tools can help educators across the country enhance learning and strengthen bonds between teachers and students.

TOOL BUILDING

BY THE NUMBERS

Summit Learning



1.3M+
mentor sessions
conducted with
platform¹³



34M+ learning goals in platform¹⁴



500K+hours of professional development training provided to educators¹⁵



54% schools in urban areas 29% schools in suburban areas

17% schools in rural areas¹⁶

73% public

schools

22% charter schools

5% private schools¹⁷

Along



270K+ student reflections in response to teacher questions¹⁸



15K+
unique reflection
questions used by
teachers with students¹⁹

• Dobie High School - Houston, Texas | Photograph by Foxes and Wolves, courtesy of Gradient Learning

In partnership with educators at Gradient Learning and researchers in the science of learning and human development, we design learning experiences and tools — such as Summit Learning and Along — to help teachers connect with students and tailor learning experiences to individual student needs.



Relationships matter

Along

Along helps teachers and students make connections that lead to better conversations and thriving classrooms.

Jump to Spotlight →



Learners for life

Summit Learning

Summit Learning gives teachers the curriculum, resources and support to differentiate instruction and meet the needs of every student.

Jump to Spotlight →

• top: Thompson Intermediate School student – Pasadena, Texas | Photograph by Foxes and Wolves, courtesy of Gradient Learning. bottom: Aspen Valley Prep Academy Charter School – Fresno, California | Photograph by Foxes and Wolves, courtesy of Gradient Learning

along

A kind word from a teacher after class or a morning greeting from the principal helps students feel like they belong. However, many students struggled when the COVID-19 pandemic interrupted inperson learning because they lost many of their daily interactions with trusted adults at school.

Teachers told us they needed a way to maintain relationships with their students while schools were closed and strengthen them when students returned to the classroom. So, we set out to build a tool to help them. We worked with teachers, researchers and our partners at Gradient Learning to develop and release a new tool to help teachers and students connect and build trust.

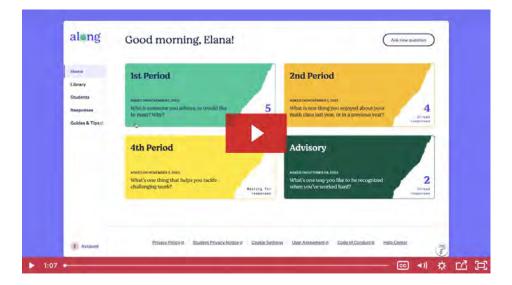
Launched in 2021, Along is a teacher-student connection builder that gives educators an easy and meaningful way to check in with each student — and know them on a deeper level. Along is based on what we know from research: when students have positive relationships with their teachers, they are more likely to feel motivated and engaged in school, develop positive social and emotional competencies, and perform better academically.²⁰

How CZI Supports Along

CZI's educational technology team built and continually evolves Along. Ahead of the 2023 Back to School season, Along launched new features — conceived in a co-building workshop with educators — which help teachers capture student perspectives on their learning, view insights on individual or whole class responses, and receive suggested next steps on how to integrate student input. Along's content and workflows make it even easier to adopt across academic and advisory settings to create even more engaging classrooms and improve outcomes.



• Thompson Intermediate School student - Pasadena, Texas Photograph by Foxes and Wolves, courtesy of Gradient Learning



A Model for Education Technology Development

Along illustrates the good that can happen when learning scientists, educators, students and community partners join us in product development to co-build new tools that address challenges faced by teachers and students in the classroom. Research transforms from theoretical to practical, and technology tools are shaped by the lived experiences of teachers and students. This collaborative approach remains the model for our technology investments.

along

First, Along makes learning science research actionable for educators. We worked with Search Institute to make sure the product was truly grounded in research on the critical importance of strong developmental relationships between educators and students.²¹

Second, we partnered with a range of experts to ensure that Along's content and user experience were accessible across a range of abilities, promoted positive racial and cultural affirmation, and were inclusive of teacher and student feedback. These organizations include Black Teacher Collaborative, Character Lab, Greater Good Science Center, GripTape, Re-Imagining Migration, Teach Plus, Understood, and UnidosUS.²²

Third, Along is rooted in our commitment to creating edtech products that solve for educator needs — to support their efforts to unlock the full potential of every student. To inform our latest features, this summer we conducted extensive user research including co-building sessions with educators in Kansas City, Missouri, school districts, thanks to a partnership with Leanlab Education.²³ Their input helped shape how the new features invite and integrate student voice. We also added a new partnership with Transcend, an organization with deep expertise in elevating student voice to transform school communities. Many of our new questions

to invite student input are inspired by their research-based Leaps survey.²⁴

Finally, from the outset, CZI developed Along with safety and privacy in mind.

Rigorous security and privacy principles* guide all of our work and development.

We regularly evaluate our policies and practices to improve security and to align with the latest practices of the security industry. In recognition of our strong approach, Along has earned iKeepSafe's Privacy badges for alignment with guidelines surrounding the federal Family Educational Rights and Privacy Act (FERPA) and Children's Online Privacy Protection Act (COPPA).²⁵

Stronger Connections, Improved Outcomes

Along is helping students and teachers across the country create powerful connections. According to research, it's these relationships that can lead to improved academic outcomes. ²⁶ Already, students have provided more than 270,000 reflections in response to teacher questions, with teachers using more than 15,000 *unique* reflection questions with students. ²⁷

A spring 2023 survey of more than 700 teachers and students using Along found that large majorities of both teachers and students agree that Along helps them

build relationships. Nearly 9 in 10 (89%) teachers who responded agreed that Along helps them find time and capacity to build relationships. Almost three-quarters (72%) of students who responded agreed that Along helps their teacher get to know them.²⁸

In recognition of the value Along provides to teachers and students, the teacherstudent connection builder received a Special Mention on the TIME Best Inventions of 2022 list; and was named a World Changing Idea finalist by Fast Company, a 2022 Best Tool for Back-to-School by Common Sense Education, and

a winner of a District Administration's 2023 Top Ed Tech Products Awards.²⁹

CZI will continue to collaborate with educators to develop new features in Along that give teachers more actionable insights about who their students are as individuals and how they experience the classroom. We use the collaborative process pioneered with Along as a model for developing additional tools that enable teachers to implement research-based best practices in the classroom to support student success.

"Our classes are packed ... which makes it really hard to meet individually with students. Along gives me a way to connect using questions that are already formulated. This is my way to establish in a safe way that I'm here as a teacher, and as someone you can trust and share with who is not your parent. I want them to have a connection with me and I want them to have a moment of reflection about themselves, to really be able to see themselves."



Ashley Snider English teacher, Davie County High School, Mocksville, NC

 $\hbox{*Visit $\underline{$a$long.org/trust-safety/}$ to view Along's } \\ Security Whitepaper.$



Today, educators define success in a fundamentally different way than in the past. Educators know that for students to succeed, they must meet both students' developmental needs and consider all the different factors that impact their learning. This whole child approach to education drives a stronger sense of self, a greater ability to learn, and better life outcomes.

Research shows that students learn best when they are challenged but not overwhelmed — and when learning is relevant to their interests and experiences.³⁰ To do all of this well, teachers need effective tools and ongoing support. However, educators often have to maneuver through a disconnected set of piecemeal solutions to determine which ones best fit their needs.

The Summit Learning program was created to solve this problem by providing a whole child approach that gives educators access to a vast library of high-quality curricula, professional development, coaching and technology tools — all in one place — to help teachers meet the needs of every student. The program's research-based approach and resources drive student engagement, meaningful learning and strong teacherstudent relationships.

Summit Learning launched in 2015 with 19 schools in 10 states and Washington, D.C.³¹ Since then, the program has served more than 200,000 students.³² Spanning 43 states over the years,³³ Summit schools reflect the diversity of America's education system — as of fall 2023, 54% of Summit Learning's partner schools are in urban areas, 29% in suburban areas, and 17% schools in rural areas; and 73% of schools are public, 22% are charter, and 5% are private.³⁴

What unites educators who choose Summit Learning is a commitment to meeting the holistic needs of every student. Teachers report that Summit Learning helps them support academic achievement and create connections that foster student well-being. A 2022 survey of Summit Learning educators found that 95% of school leaders and 82% of teachers said that Summit Learning improves student academic outcomes. And, nearly all teachers surveyed (95%) agree that the mentoring component of the program has positively changed students' attitudes about school. 35

How CZI Supports Summit Learning

Custom-built, the Summit Learning platform was an early pioneer in enabling teachers to follow student progress and provide individualized help directly to their students. Students access learning



Aspen Valley Prep Academy Charter School - Fresno, California
 Photograph by Foxes and Wolves, courtesy of Gradient Learning

resources, submit assignments, receive feedback from teachers, set goals, and reflect on their learning. Parents and caregivers see exactly what their student is working on and how they're progressing at any given time.

In a commitment to continuous improvement, CZI has evolved and added numerous features to the platform over the years, based on educator feedback provided to Gradient Learning and CZI. Every feature encourages skills and habits identified by learning science researchers to help students succeed in the classroom and beyond — such as communicating ideas clearly, developing resilience in the face of setbacks, and practicing self-advocacy.

The program has been honored for its approach and features. Digital Promise recognized Summit Learning for its commitment to Research-Based Design and Learner Variability (supporting the full range of skills and background experiences that students bring to school). The program is also recognized for ensuring that it protects student information. Due to the safeguards CZI builds into all its digital tools, Summit Learning received the highest ranking when Common Sense Education conducted privacy evaluations of popular edtech resources. The safeguards of the safegu



Raising the Bar for Teacher and Student Success

Summit Learning has helped schools across the country improve student outcomes and foster a stronger sense of school culture.³⁸ For example, Prairie Heights Middle School in Northern Colorado joined the Summit Learning program in the 2017-18 school year as part of an effort to prioritize school culture and climate, and professional learning opportunities for teachers. The Summit Learning model helps teachers at Prairie Heights focus on strengthening relationships with their students through mentoring, which became a core tenet of the school's learning experience. Every student meets one-on-one with a mentor

weekly to discuss their progress at school and reflect on personalized goals for their learning. In addition to that time for relationship building, teachers receive coaching from Gradient Learning on how to support student well-being in all of their classes throughout the day.

The school's emphasis on caring relationships and teacher collaboration paid off. Previously rated by the Colorado Department of Education at the second-lowest ranking in the state's performance framework, after just the first year of Summit Learning implementation, Prairie Heights made dramatic progress. In 2018, 2019 and 2022, the school received the highest category in the framework.³⁹



The Road Ahead for the Summit Learning Program

The Summit Learning program demonstrates that with high-quality curriculum, well-aligned technology tools, and coaching and professional development for educators, it is possible for schools to implement changes in teaching and learning that help all students succeed holistically and graduate with an abundance of curiosity, purpose and self-direction.

Based on feedback from educators, we are supporting Gradient's work to make Summit Learning — and a whole child approach to education — even easier to implement. Beginning in the 2024-25 school year, Gradient Learning will launch the next version of the Summit Learning program, developed in close partnership with participating schools. The program will add new externally validated curricula, the latest best-in-class resources, and tools such as new dashboards to track student development — all paired with a dedicated coach who will help school leaders apply the program's components in their unique schooling context. As part of the evolution of the program, we are updating the technology that supports it. As the edtech market has evolved, there are more, quality learning management solutions available to support the program as it goes to the next level. In partnership with Gradient

"Relationships don't just happen. It really takes kids feeling like, 'You know what, my teacher pushes me to get better, and they have high expectations, but I know that's all because they care about me."



Stephanie Knox
Principal, Prairie Heights Middle
School (2019-2023)

Learning, we are working on a careful and responsible transition of core features of Summit Learning to a trusted and widely adopted technology platform.

CZI continues to provide grants to Gradient Learning to help them provide the program to schools across America. CZI will also continue the ways we've co-designed learning with Summit Learning educators by partnering with them to co-build the new tools needed to help educators across the country unlock the full potential of every student.

Together, we can provide educators with the tools and support to make their vision of whole child education a reality.

Since its inception, CZI has focused on building up research on learning and human development, and translating the findings into classroom practice. Our investments catalyzed new tools, classroom practices, and measures designed to foster whole child outcomes. Thanks to the work of our partners, these tools and resources now reach more than 5 million students.⁴⁰

The organizations included in this report are a selection of the grants made over the past eight years (a full list is available in our grants database*). They spotlight exciting progress toward an equitable whole child approach to education that gives every student exactly what they need to succeed inside the classroom and beyond. The categories below reflect key approaches to impact.



Elevating Underutilized High-Quality Research & Resources

Our partners work to distill and share new or untapped research and teaching practices with educators so they can put them to use in the classroom.

PARTNER SPOTLIGHT:

Student Experience Research Network

Student Experience Research Network (SERN) and the researchers it engaged published 30 scholarly working papers and more than 70 research translation briefs to help make research more accessible to educators.

The Problem

- Research shows that students' school experiences — including their sense of belonging, belief in their ability to learn and grow and the relevance of their schoolwork — have a profound impact on their learning and well-being.⁴⁴
- For example, in learning environments, when students receive consistent messages that they belong, they experience greater well-being and school outcomes, including improved academic grades and persistence.⁴⁵
- However, this research is not sufficiently understood by education decision-makers or translated into classroom practice.



• Photograph courtesy of Student Experience Research Network



FOUNDED: 2015

WEBSITE:

studentexperiencenetwork.org/

MISSION.

Previously known as Mindset Scholars Network, SERN connects people and ideas across research, practice and policy to advance relevant scientific knowledge and improve decision-making by education system and institution leaders so every student's school experience sets them up to learn and thrive.

Elevating Underutilized High-Quality Research & Resources

CZI Support

We supported SERN's work to advance research on the science of learning and human development, increase awareness among education leaders about the importance of student experience and work with a broad array of partners to translate these findings into teaching practices. SERN also worked to elevate the leadership of scholars from diverse backgrounds.



The Impact

SERN, and the researchers it engaged, published 30 scholarly working papers and more than 70 research translation briefs, including 33 non-technical briefs on new findings from SERN-funded research initiatives.46 SERN engaged leaders from dozens of education organizations nationally. SERN also launched the SERN Midcareer Fellows Program and graduated a cohort of 15 fellows with diverse personal backgrounds. These scholars published policy briefs that synthesized research on the school-based structures that shape students' experiences, making this research relevant and actionable for policymakers.47

As a result, more interdisciplinary research is now available in the education field, and a broader, more diverse group of scholars gained recognition for their research and leadership in the student experience field. SERN played a significant role in raising awareness about the importance of students' experience of school. A survey of SERN stakeholders found that 90% agreed that the field's knowledge base on

student experience improved, and 76% believed SERN made some or a significant contribution to this shift.⁴⁸

SERN sunset its operations in 2023.⁴⁹ As part of this strategic sunset, the group engaged in grantmaking that seeded a next generation of research-based knowledge building, relationship building and action

related to student experience. SERN supported a convening of researchers, practitioners and policymakers to synthesize existing research on student experience and measurement and its practical applications. Participants identified new directions for future research that can be sustained through new partnerships and collaborations.

"When SERN was founded in 2015, students' experience of school wasn't a prominent feature of education discourse and research was siloed. SERN advanced a cross-disciplinary knowledge base, cultivated relationships across long-standing silos, and translated research in ways that brought attention to student experience. Ultimately, SERN's work helped shift the narrative among influential leaders in education, who today are drawing on a broader body of research as they develop their strategies and programming."



Elevating Underutilized High-Quality Research & Resources

PARTNER SPOTLIGHT:

Search Institute

Search Institute adapted its Developmental Relationships Framework to equip teachers with specific actions to support historically underserved students.

The Problem

- Research shows that young people who experience strong developmental relationships are more likely to show positive development in academic motivation, social and emotional growth and learning, and personal responsibility. As a result, they have higher grades and feel more connected to school. However, young people don't experience these relationships as often as they should.⁵⁰
- One in 5 youth in grades six through 12 report no strong relationships in their lives. Educators need guidance on specific actions they can take to cultivate these relationships, especially with youth of color and youth from low-income communities who have experienced systemic discrimination.⁵¹



Photograph courtesy of Search Institute



FOUNDED: 1958

WEBSITE: searchinstitute.org/

MISSION:

Search Institute partners with organizations to conduct and apply research that promotes positive youth development and advances equity.

Elevating Underutilized High-Quality Research & Resources

CZI Support

Search Institute conducted research with schools and educators to validate adaptations to their Developmental Relationships Framework — a research-based framework of teaching practices correlated to academic and life outcomes — and to ensure it's more culturally responsive. Search Institute also developed an adult-to-adult version of the framework that equips teachers to create environments where all students can thrive.⁵²

Search Institute worked in partnership with parents to research the power of relationships in schools. In a national survey, more than half of parents reported a strong student-teacher relationship positively impacts their children's growth and strengthens the priorities parents have for their children.⁵³

The Impact

Search Institute launched the Cultural Adaptation of Developmental Relationships in Education (CADRE) project. This project supports teachers' understanding of the specific actions they can take to improve and strengthen relationships with students in their schools. CADRE is being piloted in three school districts across the United States. When complete, this research will give educators additional strategies and tools to foster strong developmental relationships that benefit students' academic achievement and well-being.

Search Institute also conducted focus groups with teachers to understand the impact that relationships between educators can have on their students. This research outlined essential elements of adult-to-adult relationships and identified steps that school leaders can take to strengthen them.⁵⁴

"Developmental relationships play an essential role in helping young people learn and grow. When schools take an intentional approach to building connections between students and caring adults, it pays off in increased academic achievement and well-being."



Benjamin Houltberg, Ph.D.President and CEO



Elevating Underutilized High-Quality Research & Resources



Advanced Education Research and Development Fund

The Advanced Education Research and Development Fund (AERDF) launched three research and development efforts to transform the trajectory for Black and Latino students, and students experiencing poverty across the nation.

AERDF is a national nonprofit research and development organization launched in 2021 that discovers breakthrough scientific inventions in pre-kindergarten through 12th grade education to transform the learning trajectory for Black and Latino students and students experiencing poverty across the nation. AERDF's ambitious three-to-five-year programs address major teaching and learning challenges. Their programs build on existing community-driven evidence and expertise, as well as learning science, to translate fundamental insights into usable knowledge, useful practices, equitable approaches and transformative tools for education practitioners and students. Since AERDF's launch, its programs — currently focused on math, formative assessment and reading — have been piloted with more than 20,000 students. ⁵⁵



Digital Promise

Digital Promise developed the Learner Variability Navigator (LVN), a free tool that connects educators and edtech product developers with research-based strategies. The LVN reaches about 12,000 unique monthly users directly, and many more indirectly.⁵⁶

Digital Promise works to advance equitable education systems by bringing together solutions across research, practice, and technology. The free LVN connects educators and edtech product developers with research-based strategies that support the whole learner so that they can better meet each student's unique

needs. The LVN reaches users directly and indirectly, through partnerships with over 50 education technology products that have integrated LVN content into their platforms; eight professional development partnerships with school districts and teacher organizations; and through awarding more than 100,000 continuing education certificates to teachers.⁵⁷ This work also includes the Individualized Education Program (IEP) Project, with a teacher-produced guide to support the development of strengthsbased, whole child IEPs based on LVN's factors and strategies.

Elevating Underutilized High-Quality Research & Resources



Science of Learning and Development Alliance

The Science of Learning and Development Alliance published three papers and developed a school design framework.

These resources are being used to change practice and policy at the national level, and have received more than 1.2 million views and nearly 800 citations.⁵⁸

The Science of Learning and Development Alliance brings together leaders across research, practice, and policy to elevate what we know about how young people learn and grow, to transform our education and youth development systems.



Thomas B. Fordham Institute

The Fordham Institute and Democrats for Education Reform convened the Building Bridges Initiative and published "A Generation at Risk: A Call to Action," which was endorsed by nearly 200 education leaders across the political spectrum.⁵⁹

The COVID-19 pandemic had a profound impact on student achievement and wellbeing, especially for students of color, students from low-income backgrounds and students with disabilities. The Building Bridges Initiative brought together an ideologically diverse group of education leaders to identify strategies to address the immediate needs of today's students, while building a more responsive educational system for the future. Guided by research about what's working in communities across the country, the consensus report bridged ideological differences and elevated proven approaches to help all students reach their full potential.



Alliance for Excellent Education

The Alliance for Excellent Education's (All4Ed) Future Ready Schools (FRS) network identified 85 successful strategies for student-centered instruction and published practitioner-developed implementation guides with research-grounded strategies, guiding questions and innovative approaches.⁶⁰

All4Ed works to expand equitable policies and practices and support all students, especially those from historically underserved communities, focusing on innovation and excellence. All4Ed's FRS network partnered with Columbia University's National Center for Restructuring Education, Schools & Teaching to develop practitioner-developed implementation guides aligned with the FRS Planning Framework, and

provide educators with access to research-grounded strategies, guiding questions and innovative approaches. These guides were instrumental during the transition to remote learning amid the pandemic and will underpin the new FRS Research to Practice Innovation Center. This center will further advance emerging technologies and practices within the FRS network — representing over 3,400 district superintendents, thousands of teachers, school librarians/media specialists, tech directors, principals and district administrators across the U.S.⁶¹

Shifting Standards & Measures of Success

Our partners are incorporating whole child principles into teaching standards and developing new ways to measure student and school success that center local priorities.

PARTNER SPOTLIGHT:

National Board for Professional Teaching Standards

The National Board is revising its standards to incorporate new findings from the science of learning and human development, helping more teachers than ever with knowledge and teaching practices that improve student outcomes.

The Problem

Too few teachers have access to professional development experiences that take a holistic view of students, equipping them with tools and strategies to better understand students' needs and tailor learning experiences to those needs.

A RAND survey showed that 80% of teachers want more support to address the social and emotional needs of their students.⁶²

In addition, teachers of color feel that their identities, experiences and expertise are not adequately represented in standards or curricula.⁶³



• Photograph courtesy of the National Board for Professional Teaching Standards



FOUNDED:

1987

WEBSITE: nbpts.org/

MISSION:

The National Board advances the quality of teaching and learning by maintaining high and rigorous standards for what accomplished teachers should know and be able to do; providing a national voluntary system certifying teachers who meet these standards; and advocating related education reforms to integrate National Board Certification in American education and to capitalize on the expertise of National Board Certified Teachers.

Shifting Standards & Measures of Success

CZI Support

The National Board is working to expand its impact, reaching more teachers and enhancing systemic change. One priority includes developing and revising standards that align with the science of learning and human development, and help teachers implement equitable classroom practices that improve student outcomes.

A second priority includes growing educator awareness and school, district and state investment in board certification, focusing on equity. Expanding the number and broadening the diversity of teachers who go through the National Board Certification process is critical for educator development and retention. Research shows that National Board Certified teachers are more effective than those who are not board-certified and that they remain in the profession longer.⁶⁴

The Impact

More teachers than ever before are striving to become National Board Certified teachers. In 2023 there were 8,600 new participants, up from 6,400 the previous year. The participants are also a diverse group of teachers: approximately 30% of new participants are educators of color.⁶⁵

The National Board is also revising its certification standards to include CZI-supported research from the Learning Policy Institute on implications for teaching practice from the science of learning and human development, and to reflect advances in diversity, equity, inclusion and belonging. Full revision and implementation of the new standards will include science-aligned certification changes, resources and examples to help teachers implement teaching practices that improve student outcomes.

"By the very nature of our mission, the National Board values educators' dedication and commitment. Teachers are often our children's first responders, and the country is witnessing how vital that role is — not only academically, but also socially, emotionally, and as pillars of connection, community, and stability."





Shifting Standards & Measures of Success

PARTNER SPOTLIGHT:

The Education Collaboratory at Yale

The Education Collaboratory developed measurement tools that K-12 schools and families can use to foster the development of healthy emotion management among both children and adults.

The Problem

Along with families and communities, schools play a critical role in supporting youth's social and emotional development. More than 20 years of research show that social and emotional learning helps students achieve more academically and make better decisions.⁶⁶

Yet many educators don't have the training and tools to help students develop social and emotional skills. In addition, schools lack reliable ways to track the impact of social and emotional learning on school climate and student well-being — especially for historically underserved students.



• Photograph courtesy of the Education Collaboratory at Yale

The Education Collaboratory at Yale

FOUNDED:

2023

WEBSITE:

medicine.yale.edu/childstudy/ research/collaborative-labs/educationcollaboratory/

MISSION:

The mission of the Education
Collaboratory at Yale is to advance
the science and practice of social and
emotional learning. Through intentional
collaboration with students, educators,
leaders and organizations, the Education
Collaboratory investigates, inspires and
addresses open questions in the who, what
and how of inclusive and equitable social
and emotional learning.

Shifting Standards & Measures of Success

CZI Support

The Education Collaboratory at Yale developed tools to research, assess and uncover a more comprehensive picture of the emotional health of a school, and the impact of emotional intelligence on motivation and learning — while using data to inform development and decision-making in a school. CZI also supported its research division to understand the use of these tools and develop implementation guidance for other school systems to utilize.

The Education Collaboratory partners with Trajectory of Hope and Urban Assembly to adopt social and emotional learning interventions, implement accompanying assessment tools and ensure that practices promote equity.

The Impact

The Education Collaboratory developed an integrated suite of assessment tools to measure the emotional health of a school — including how the school measures emotional self-awareness, assesses emotional skills in children and adults, and gauges the social and emotional climate of classrooms and schools. These assessments are important to helping schools create environments that support the whole child. These scientifically validated tools have been used in more than 70 schools and have reached 33,000 students.⁶⁷ They include:

• SCHOOL CLIMATE WALKTHROUGH, a web-based assessment tool grounded in students' daily experiences — measures nine domains of school climate, including safety, relationships, teaching quality and respect for diversity.

- MOMENTARY EMOTION ASSESSMENT, which tracks how students feel and how they respond to their emotions at school.
- STUDENT EMOTION REGULATION
 ASSESSMENT, which measures how
 students use emotional regulation
 strategies so that teachers can
 better support them.
- SUITE OF ADULT WELL-BEING
 ASSESSMENTS (including The Core
 Relational Themes of Emotion Test and
 Meso-Expression Test), which help
 adults understand and improve their
 emotional intelligence.

"Our work to help schools and communities define and measure what's important to them has resulted in innovations in what school's measure and how they measure it. It brings critical nuance to student and school profiles that extends far beyond traditional academic indicators or competency scores, and is supporting educators and leaders to see students as they are rather than who we may imagine them to be."





Chris Cipriano, Ph.D.Founding Director

Shifting Standards & Measures of Success









Learning Policy Institute

The Learning Policy Institute (LPI) created a Whole Child Policy Toolkit, which is now being used by states to advance whole child policies in four states.⁶⁸

LPI provides high-quality research to advance education policy and practice. LPI's Whole Child Policy Toolkit is an interactive website designed to provide state policymakers and education leaders with easy access to strategies, tools and resources to advance whole child policy and systems change. Following the release of the toolkit, LPI and its partners provided direct support to states working to implement toolkit recommendations to advance whole child policy in California, New Mexico, Maine and Washington state.

Future Focused Education

Future Focused Education (FFE)
supports local education agencies across
New Mexico to build new high school
graduation pathways grounded in the
unique needs of their communities
and workforce.

FFE is working to create healthier and more prosperous communities by advancing the best education for the students who need it the most. FFE is building new high school graduation pathways through capstone projects and graduate profiles. FFE now supports 27 local education agencies across New Mexico and expects for that number to grow in the next year.⁶⁹

Cajon Valley Union School District

The Cajon Valley Union School District is refining and implementing its community-based career-development model World of Work in 27 schools, and assessing the impact on students' academics and aspirations for the future.⁷⁰

The district is also engaging families in designing activities that build on students' interests and skills, and developing strategies to measure impacts on student learning, school climate and sense of purpose.

University of California, Irvine

University of California (UC), Irvine built new tools and dashboards to help Anaheim Union High School District educators measure student progress in skills such as critical thinking, collaboration and communication.

UC Irvine supports Anaheim Union High School District to measure the impact of the school district's Career Preparedness Systems Framework. By leveraging new tools and dashboards built by university researchers, educators across the district are now able to see student growth in both academics and life skills. The district measures progress in 21st-century skills such as critical thinking, collaboration and communication, while also fostering youth voice and technical skills. Since implementing this model, the district has seen an increase in student graduation rates, improvements in college readiness and career to technical education pathways, and more.71

Shifting Standards & Measures of Success







BARR

BARR (Building Assets, Reducing Risks) is a school improvement model focused on strong teacher-student relationships, which multiple research studies show to positively and significantly improve student learning.⁷²

BARR is conducting research to better understand the barriers preventing schools from adopting transformational programs, which have been shown by large bodies of research to have a positive impact on students.

Village Of Wisdom

Village of Wisdom (VOW) works with teachers in Durham, North Carolina, to give them the tools and resources they need to create learning environments that help students of color thrive.

VOW supports family organizing and advocacy groups that are working to eliminate racial injustice in schools. VOW developed tools and resources to help create ideal learning environments for Black and Brown learners. Designed with Black parents and teachers, these resources support teachers and parents in providing culturally affirming instruction. VOW has worked with 180 teachers and reached approximately 1,600 students in Durham.⁷³

Center for Collaborative Education

In partnership with University of Massachusetts, Amherst, the Center for Collaborative Education (CCE) is engaging local communities to determine measures that matter for student success in 13 Massachusetts schools that serve approximately 10,000 students.⁷⁴

CCE partners with schools, districts and communities to increase educational equity and ensure that students succeed and communities thrive. CCE created a process to engage local communities in determining the measures that matter for student success.

Co-Designing for Impact With Educators, Students and Community High-quality education research and new approaches to learning are most impactful when they are guided by the expertise of educators, students, parents and caregivers closest to schools.

PARTNER SPOTLIGHT:

Transcend

Transcend has helped 33 schools adopt a whole child approach shown to support student outcomes — such as perseverance, self-efficacy, and a sense of belonging — that are critical for learning.

The Problem

Children's academic success is linked to their overall well-being. Decades of research show that adverse experiences create additional stress, affecting a student's attention, learning and behavior. Conversely, education models grounded in a whole child approach leverage students' assets and improve outcomes.⁷⁵

Many educators do not have access to guidance, resources and professional development to implement a whole child approach in their schools.



• Photograph courtesy of Van Ness Elementary School



FOUNDED:

2015

WEBSITE:

transcendeducation.org/

MISSION:

Transcend is made up of a diverse team of educators, innovators and changemakers with experience as school and system leaders, working toward a vision where all young people learn in ways that enable them to thrive in and transform the world. The organization is unified in its mission to support school communities to create and spread extraordinary, equitable learning environments.

Co-Designing for Impact With Educators, Students and Community

CZI Support

Transcend and Van Ness Elementary School in Washington, D.C., partnered together to help schools in D.C., and nationwide take a whole child approach to teaching and learning, helping cultivate critical thinkers and develop a generation of confident, curious and compassionate members of society. With support from Transcend, the Van Ness Elementary Whole Child Model was codified to help more students build the skills they need to regulate their emotions, manage stress and handle conflicts productively. Transcend and Van Ness are also expanding sites for research and evidence gathering through a federal Education Innovation and Research grant to understand the impact of their model on academic outcomes.

The Impact

Adopting the whole child model requires educators and school leaders to implement school wide practices that create a safe, connected environment for children and adults. Because each school community is different, Transcend and Van Ness collaborated to develop tools to support the implementation of the whole child model in various school contexts.

Two of the biggest challenges are building community-wide support for implementation and ensuring sustainability. Transcend created resources to help educators understand the readiness of their communities to adopt the whole child model — including conducting fieldwork with each district's students, staff and school community. The fieldwork helped to understand support and interest in the implementation of the whole child model — along with potential challenges — to ensure that it could be sustained.

Support from Transcend has helped 33 schools adopt the student well-being component of the Van Ness Whole Child Model, including throughout Washington, D.C.; in Aldine, Texas; Memphis, Tennessee; and Carrollton, Texas. ⁷⁶ Research in these schools shows that the model supports outcomes such as perseverance, self-efficacy and a sense of belonging that are critical for learning.

"If kids don't feel physically safe and emotionally safe — if they don't have a sense of belonging, if they don't feel cared for and loved — they are not able to access the parts of their brains that are needed for critical thinking and academic learning."



Cynthia Robinson-Rivers Partner



Co-Designing for Impact With Educators, Students and Community

PARTNER SPOTLIGHT:

Equal Opportunity Schools

Equal Opportunity Schools (EOS) has worked with more than 900 schools to enroll more than 70,000 students from diverse racial and economic backgrounds in advanced classes.

The Problem

Every year, more than three-quarters of a million high school students are ready to take Advanced Placement (AP), International Baccalaureate (IB) and other advanced courses but are not enrolled. These students are disproportionately students of color and/or from low-income families.⁷⁷

It's not for lack of interest that students are not enrolled. For example, 2 in 5 Black and Latino students say they enjoy science, technology, engineering and math (STEM) courses and aspire to go to college, but less than 3% enroll in STEM courses.⁷⁸

Instead, often there are barriers in schools to advanced courses, such as a requirement for a single measure of readiness that disproportionately affect students of color.



• Photograph courtesy of Equal Opportunity Schools



FOUNDED: 2010

WEBSITE: eoschools.org/

MISSION:

EOS strengthens educator and system leader capacity to break down barriers to increase access, belonging and success in rigorous college and career-prep secondary school courses for underserved and underrepresented students so that they may thrive in their postsecondary pursuits and life goals.

Co-Designing for Impact With Educators, Students and Community

CZI Support

EOS works with more schools nationwide and broaden its research on student belonging, academic experiences and well-being. EOS is also improving the Student Insight Card, which provides 43 unique insights for each student with data from a survey developed to understand students' interests, aspirations, challenges and barriers to enrolling in higher-level courses. The survey helps schools better understand their students and design ways to engage highly capable students in advanced coursework.

The Impact

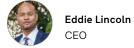
EOS helps schools analyze data to uncover students with the potential to succeed in advanced coursework, design outreach plans to engage them, and create a support system to ensure they succeed. When schools broaden the definition of readiness for advanced learning and create a culture of belonging, they find that many more students are ready to enroll and succeed in these courses.

Since 2011, EOS has worked with more than 900 schools to enroll more than 70,000 students from diverse racial and economic backgrounds in advanced classes.⁷⁹

For example, after Verona Area High School in Wisconsin adopted the EOS model in the fall of 2013, AP enrollment increased among low-income students and students of color by 25% in one year. Over the next nine years, the district enrolled more than 500 students of color and low-income students in AP courses. ⁸⁰ In New York City, schools working with EOS increased enrollment in AP/IB courses by an average of 16% — or 3,400 students — over six years while increasing or maintaining course and exam pass rates. ⁸¹

The Equal Opportunity
Schools approach promotes
a definition of academic
readiness that looks
beyond test scores, GPA
and prerequisite courses to
incorporate a holistic view
of students and schools in
context. Students across
the country are ready
and able; they just need
to be seen, and we need
to remove barriers to the
academic resources they
need to meet their goals."





Co-Designing for Impact With Educators, Students and Community



GripTape

GripTape supports more than 1,000 students each year in pursuing unique learning experiences for their individual interest or passion. §2 GripTape provides guidance for designing a custom 10-week learning experience, resources to pursue this learning and an adult mentor to support them.

GripTape partnered with Cornell University to research these experiences, with the research showing that youth improve in areas that are critical to development and well-being: environmental mastery and sense of control over their responsibilities; the autonomy to act against social pressures and shape their environments; and a sense of self-acceptance. Youth also improve their self-esteem and "pathways of hope" — that is, they're better able to envision alternative directions forward through stress. Maybe most importantly, the youth-driven experiences help their sense of purpose improve significantly, and an increase in purpose is linked to many other facets of well-being.⁸³



NACA Inspired Schools Network

The NACA Inspired Schools Network

(NISN) supports the development of more than 1,200 students across twelve schools grounded in Indigenous education, which serve students from early childhood to adulthood so that they are academically prepared, secure in their identity and healthy.⁸⁴

More than 60 nations are represented among the student body, including Navajo, Pueblo, Ute Mountain Ute, Red Lake Band of Chippewa and Sicangu Lakota — to name a few. CZI's grant is helping NISN to understand the connection between land-based healing and learning practices on student learning.



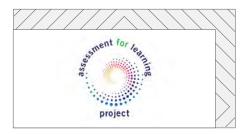
American Federation of Teachers

The American Federation of Teachers

(AFT) redesigned its professional development to incorporate the science of learning and development.

The AFT is a 1.7-million member union of professionals that champions high-quality public education for students, families and communities. The AFT redesigned its professional learning coursework for new teachers to incorporate the science of learning and development, and disseminated it to 15 states and more than 100 classrooms. In addition, the AFT improved educator well-being in six states through research-based professional development and created a unique, educator-generated measure for nationwide educator workforce well-being assessment.⁸⁵

Co-Designing for Impact With Educators, Students and Community



Assessment for Learning Project at the Center for Innovation in Education

The Assessment for Learning Project

(ALP) at the Center for Innovation in Education (C!E) partners with states to engage teachers, students, families and communities in the co-design of state accountability and assessments.

The ALP, an initiative led by C!E, is dedicated to rethinking the role of assessments to foster student learning, agency and equity. The ALP expanded its membership and built a larger movement to change teacher practice and assessment, and accountability systems. ALP insights also support C!E's work with a number of states in its Interstate Learning Community as they seek to engage inclusive groups of teachers, students, families and community members in the co-design of state accountability and assessment. States include Kentucky, New Mexico, Georgia, Colorado, New Hampshire and Wyoming.86



Leanlab Education

Leanlab has partnered with 35 edtech companies, 421 educators, and more than 28,000 students to improve edtech nationwide — with co-designed products ultimately reaching more than four million students.⁸⁷

Leanlab is a nonprofit research organization with a mission to study and grow transformational education innovations that have been co-designed with school communities. Leanlab has evolved from educator trainer and edtech accelerator to an organization that helps edtech companies build better evidencebased products through educator and student co-design research experiences. Leanlab Education is a core partner to CZI and Gradient Learning on the development of new edtech products such as Along — helping teams obtain feedback from educators so that tech solutions are solving the real challenges faced in their classrooms.

Investing in Educators

Recruiting high-quality teachers, supporting their well-being and investing in their development improves school environments, increases teacher retention and supports better outcomes for all students.

PARTNER SPOTLIGHT:

The Hunt Institute

The Hunt Institute's One Million Teachers of Color campaign is working toward a goal of adding one million teachers of color and 30,000 leaders of color to the education workforce over the next decade.

The Problem

Classroom teachers do not reflect the diversity of today's students. While children of color represent a majority of today's students in K-12 classrooms, 80% of teachers are white.⁸⁸

Access to teachers and leaders of color benefits students from all backgrounds, particularly positively impacting students of color. Research shows that students of color with teachers of a similar race/ethnicity, identity and lived experience are less likely to be suspended and more likely to graduate high school, and enroll in postsecondary education.⁸⁹



Photograph courtesy of The Hunt Institute



 ${\bf FOUNDED:}$

2001

WEBSITE:

hunt-institute.org/

MISSION:

The Hunt Institute provides unbiased research, technical expertise and learning opportunities that equip and empower educators and policymakers to drive equitable reforms and become audacious champions for education.

Investing in Educators

CZI Support

Along with a broad coalition of partners, the One Million Teachers of Color Campaign is working to build and expand diverse educator talent pipelines, invest in financial support and incentives to recruit and retain educators of color, and make data on teacher and school leader diversity more transparent and actionable — with the ultimate goal of adding one million more teachers of color to U.S. schools.

The Impact

The Hunt Institute and its partners in the One Million Teachers of Color Campaign are raising awareness about the importance of diversifying the nation's educator workforce and bringing together senior state policymakers to develop solutions. As part of the Campaign, the Hunt Institute facilitated three Educator Diversity Summits in North Carolina, Illinois and California, and is currently planning to facilitate a Summit in Massachusetts. Following a successful Educator Diversity Summit, Illinois is now exploring creating a task force

similar to North Carolina's Developing a Representative and Inclusive Vision for Education (DRIVE) task force to improve the career pipeline for teachers of color.⁹⁰ Other states expressed interest in creating similar task forces.

The Hunt Institute also launched the first cohort of the Diversity, Equity, and Inclusion State Officers Network. These programs are reaching more than 600 educators and policymakers nationwide. 91

"My all-time favorite job was being in a classroom. When you impact a child's life, there's no greater gift."



Dr. Javaid SiddiqiPresident and CEO



Investing in Educators

PARTNER SPOTLIGHT:

FuelEd

FuelEd has provided professional learning opportunities for more than 18,000 educators to help create relationship-driven schools that help both teachers and students thrive.⁹²

The Problem

According to a RAND survey, over half of teachers reported feeling burned out.⁹³ Teacher and principal turnover is also on the rise, and it is highest in urban school districts, high-poverty districts and those where students of color represent a majority.⁹⁴

While burnout affects all teachers, surveys show that educators of color — who are already underrepresented in schools — may leave at greater rates. 95

Teacher well-being is important for teacher retention and contributes to the diversity of the education workforce and the success of students of all backgrounds.⁹⁶



• Photograph courtesy of FuelEd



FOUNDED: 2012

WEBSITE: fueledschools.org/

AISSION.

FuelEd develops emotionally intelligent educators who create relationship-driven schools.

Investing in Educators

CZI Support

FuelEd recognizes there is a gap in teacher education around relationships and human development, and believes that leveraging educators' capacity to build secure relationships can have a powerful impact on their students. FuelEd is partnering with school districts to offer professional learning opportunities that equip educators with the interpersonal skills, self-awareness and emotional wellbeing practices necessary to build strong relationships with students. While most teacher professional development centers on **what** educators teach in the classroom. FuelEd focuses on **how** the science of attachment can help teachers understand not only their own needs, but that of their colleagues and their students.

The Impact

FuelEd has worked with more than 18,000 educators to prioritize healthy relationships that create the conditions for learning and development. The impact of this work extends beyond the classroom. Nine out of 10 program participants report that their involvement with FuelEd influences practices or policies in their school or district. ⁹⁷ FuelEd also developed programs to support the broader implementation of educator wellbeing practices to foster lasting change in schools and districts.

"If we can shift the definition of trauma-informed practice to include educator trauma, school climates can become places where students and adults alike can heal and thrive. Because well-supported educators have a positive and cascading impact on students, families and school culture, when district and school leaders take care of teachers, they are also taking care of students."



Megan Marcus Founder



Investing in Educators









Center for Black Educator Development

The Center for Black Educator

Development supports the recruitment,
development and retention of educators
of color.

The Center is working to dramatically increase the number of Black educators so that low-income Black and other disenfranchised students can reap the full benefits of a quality public education. In a field where only 2% of teachers are Black men, 98 The Center is a national resource and voice for the recruitment, development and retention of educators of color. The Center has served over 9,400 scholars, teacher apprentices, high school teaching academy students, college students, in-service educators and administrators since 2019, and between 1,500 and 2,000 annually. 99

Branch Alliance for Educator Diversity

Branch Alliance for Educator Diversity
(BranchED) supported the work of
170 educator preparation providers at
Minority Serving Institutions across

170 educator preparation providers at Minority Serving Institutions across 38 states to transform their educator preparation programs and produce highquality teachers.¹⁰⁰

BranchED engaged multiple educator preparation programs and initiated new partnerships with K-12 school districts. BranchED's National Teacher Preparation Transformation Center celebrated the completion of its second cohort and welcomed its fifth cohort of Minority Serving Institutions' educator preparation programs into a three-year performance-based coaching journey.

Beyond 100K

In 2021, the Beyond100K network successfully exceeded its first goal of preparing 100,000 new science, technology, engineering, and math (STEM) teachers.¹⁰¹

Beyond100K unites leading STEM organizations in collaborative problemsolving and knowledge exchange to co-create and implement solutions that will end the STEM teacher shortage by 2043. Beyond100K is working with a national network of more than 130 partners to prepare 150,000 and retain 150,000 excellent STEM teachers who increasingly represent the diversity of our nation's classrooms and who commit to cultivating classrooms of belonging — beginning in schools in Black, Latinx and Native American communities over the next decade.

The Teaching Well

The Teaching Well provides coaching and professional development to teachers, and school and district administrators.

The Teaching Well supports educators by fostering adult wellness at the personal, interpersonal and systemic levels. The Teaching Well has provided coaching and professional development to 910 teachers and 115 school/district administrators, and held five statewide racial healing affinity groups in California serving 55 educators.¹⁰²

Investing in Educators



AASA, The School Superintendents Association

AASA provided guidance to school districts about the effective and equitable use of federal pandemic relief funding. ¹⁰³ More than 8,000 school district leaders accessed resources to maximize the impact of their recovery and redesign efforts. ¹⁰⁴

The American Rescue Plan Act provided more than \$120 billion to reopen schools and address the impacts of the pandemic. ¹⁰⁵ In collaboration with EducationCounsel and other partners, AASA developed high-quality tools to help school districts take a whole child approach to supporting students. For example, one resource helped school district leaders effectively leverage new federal funding to meet the needs of students experiencing homelessness and housing instability. ¹⁰⁶



ISTE

ISTE Course of Mind helps educators better understand how to apply learning science practices and strategies in their classrooms.

ISTE is a professional organization for educators who believe in the power of technology to transform teaching and learning. The ISTE Course of Mind helps thousands of educators better understand how to apply learning science practices and strategies in their classrooms, and trains leaders and decision-makers to use learning science principles and evidence of impact to evaluate edtech products. 107



Deans for Impact

Deans for Impact redesigned teacher preparation coursework, incorporating the science of learning and development into curriculum and extensive training, and launched the inaugural Learning by Scientific Design Network.

Deans for Impact works to ensure that every child is taught by a well-prepared teacher by working with leaders, teachereducators and policymakers to improve educator preparation. Deans for Impact launched the inaugural cohort of the Learning by Scientific Design Network with six teacher preparation programs. The network programs, which collectively enroll 3,700 teacher-candidates,

incorporated the science of learning and development into curriculum and clinical experiences through extensive training with nearly 100 teacher-educators and mentors. As a result, candidates who experienced the fully redesigned coursework were more prepared to make equitable instructional decisions, scoring 18 points higher on an assessment of knowledge and application of cognitive science principles.¹⁰⁸

Leveraging Technology

Easy-to-use tech tools grounded in the science of learning and development are helping educators and care-givers support whole child outcomes.

PARTNER SPOTLIGHT:

Reach Every Reader

Reach Every Reader (RER) tools have reached more than 58,000 children, 28,000 educators and 7,000 parents and caregivers.¹⁰⁹

The Problem

Over half of U.S. children are not proficient readers by the end of third grade. Struggling readers face significant challenges in school and beyond. A student who fails to read adequately in first grade has a 90% probability of reading poorly in 4th grade and a 75% probability of reading poorly in high school.¹¹⁰

There has been limited progress in science-based interventions to help students gain reading proficiency, and interventions are often implemented too late to create a successful impact.¹¹¹



• Visual courtesy of Reach Every Reader



FOUNDED:

2018

WEBSITE:

reacheveryreader.gse.harvard.edu/

MISSION:

RER's vision is that all children will be readers with the skills, knowledge and interest to read for learning and pleasure. Leveraging Technology

CZI Support

A collaboration between neuroscience and education research teams at the Harvard Graduate School of Education, MIT's Integrated Learning Initiative, and Florida State University, RER works to address the urgent and persistent societal challenges of early literacy through five areas of research: pre-literacy skills and early childhood development, screening and diagnostic assessments of literacy development, early intervention and support for developing readers, literacy tools and practices for educators, and scalability and collaboration with other researchers and organizations.

The Impact

RER has reached more than 58,000 children, 28,000 educators and 7,000 parent caregivers in 47 states. PER developed, validated and proved effective three mobile apps that promote preliteracy skills, highlighting the role of conversations in early childhood language development. RER also established the Agile Teacher Lab to provide professional learning for educators at all levels of their career development, including a virtual classroom simulation and a board game to help improve decision-making and promote deeper thinking in the classroom.

RER tools are making an impact in early elementary classrooms. For example, RER's Interstellar Express Hotshot quick literacy screener is used to determine if a child is at risk for being a struggling reader. The Model of Reading Engagement (MORE) curricular tools lead to lasting improvements in reading comprehension in science, social studies and English language arts. In North Carolina, students who participated in MORE for three years demonstrated higher achievement in reading and math, and the gains persisted after students were no longer receiving MORE lessons. 113

"One of my hopes for Reach Every Reader is that we contribute to joyful, equitable and rich learning environments that support thriving readers. Beyond that, we seek a greater understanding of personalized interventions, and of how to leverage children's talents and strengths and merge that with what they need to succeed. I'm excited to help change the way learning happens, even beyond literacy"





Leveraging Technology

PARTNER SPOTLIGHT:

Feedback Prize by The Learning Agency Lab

The Feedback Prize created free, opensource tools that provide students struggling with writing skills with more frequent, automated feedback which also helps expedite the grading cycle for teachers.

The Problem

Most high school graduates are not prepared for the writing demands of college or the workplace.¹¹⁴

Difficulties in evaluating writing are reinforced by the fact that teachers aren't given enough resources and time to provide the feedback necessary to help students become strong writers. Moreover, they are overburdened by routine duties such as grading essays.

For students, the lack of opportunity for practice with useful, timely, ongoing feedback tied to instruction leads to unskilled and painful production, procrastination, anxiety and fear.





• Photograph by akinbostanci via iStock photo



FOUNDED:

2019

WEBSITE:

the-learning-agency-lab.com/

AISSION.

The Learning Agency Lab is a nonprofit that seeks to improve the effectiveness of K-12 and post-secondary education — especially for historically marginalized populations — by creating free or atcost resources that are aligned to the sciences of learning.

Leveraging Technology

CZI Support

In 2019, The Learning Agency Lab partnered with Georgia State University and Vanderbilt University to launch The Feedback Prize. The project leveraged artificial intelligence to develop free tools to help teachers supplement their feedback to students struggling with writing by providing more frequent and automated feedback, in addition to that given by teachers directly. Working with teachers, students and researchers, the team gained a detailed understanding of the challenges teachers and students face with writing. They collected data and launched an open competition to develop tools that could help provide highquality feedback from educators reliably and without bias. The team also worked to create tools that will help English language learners receive more accurate feedback on their language development and expedite the grading cycle for teachers. The new tools developed through these projects will be free and open source.

The Impact

A case study of the Feedback Prize showed that teachers must be part of the development of assisted writing feedback tools — from data collection to evaluation of performance — to ensure writing tools are successful.¹¹⁵

While technology alone is not enough and these innovations are best viewed as tools to support teachers rather than a cure-all, they can be leveraged to help teachers have an even more significant impact on students.

The team gathered 26,000 argumentative essays submitted by students, which were annotated for writing elements. This is the largest, publicly available annotated dataset of argumentative writing. Given the dataset's size — and the inclusion of related demographic information — this dataset will greatly advance the field for academics, practitioners, educators and students. Specifically, this data will be

used to improve automated assessment tools for writing to ensure that these tools are more accurate, less biased and student-centered.

The project team hosted three Kaggle machine learning competitions that produced open-source algorithms that are readily transferable to educational ecosystems. The winning models achieved an accuracy rate of 75% — the same accuracy as teachers who reviewed and scored those materials.

Finally, the project team published five academic publications, conducted eight academic presentations, and had more than 12 popular articles published about this work.¹¹⁶

"With the very generous support of CZI, our team in collaboration with professor Scott Crossley has been attempting to create more effective, accessible, and equitable assisted writing feedback tools."



Ulrich BoserFounder and CEO



Leveraging Technology



Healthy Minds Innovations

A well-being app developed by Healthy Minds Innovations (HMI) for teachers reduced measures of depression and anxiety by more than 10% and improved well-being by 25% at a five-month follow-up.

HMI, a nonprofit technology arm of the Center for Healthy Minds at the University of Wisconsin-Madison, is driven by a mission to translate science into tools to measure and cultivate well-being. HMI pursued the development of two projects: one focused on validating mobile measures of well-being for adolescents, and one focused on a lightweight and impactful well-being intervention for teachers. In the project on the development and validation of mobile measures of well-being, the team created ways to measure core components

of youth well-being — including awareness, connection, insight and purpose. Findings from their studies will be published and shared with the education field. HMI evaluated its well-being intervention for teachers in two school districts using a rigorous, randomized controlled design with dramatic results. Findings from the Wisconsin school districts have already been published and findings from the Jefferson County School District in Louisville, Kentucky, are anticipated in early 2024. The findings from both trials show reductions on measures of depression and anxiety greater than 10% and improvements on measures of well-being of 25%. Findings show that the benefits endure at three to six months post intervention.117



LEAP Innovations

The LEAP model that supports tailored learning experiences for each student has a positive impact on students' math and reading scores.

LEAP Innovations believes tailoring learning experiences to the needs of each student can help them ignite their potential and that connecting personalized teaching practices coupled with educational technology is a strategy to achieve their vision. LEAP has partnered with 21 schools across Chicago, Illinois, to implement their framework and improve student learning. A 2019 study showed LEAP learners gained an additional 7 percentile points in reading and 12.9 percentile points in math, while students in the bottom third of their class gained an additional 17.3 percentile points in math and 10.5 in reading.¹¹⁸



Evidence to Insights Coach, Mathematica

The Evidence to Insights (e2i) Coach partnered with the Center for Education Policy Research (CEPR) at Harvard University to make the free tool available to schools across the country — helping more than 50 educators with interventions to improve student outcomes.¹¹⁹

The e2i Coach by Mathematica is a free platform designed to help school and district leaders generate evidence to understand the impact of their programs, interventions and tech tools. Historically, the e2i Coach has supported schools and districts to conduct rapid cycle evaluations so they can understand the impact of their programs and investments, and ultimately make better decisions for students. The e2i Coach partnered with Proving Ground at the CEPR so that districts across the country could use the analytical tool to examine the impact of a variety of interventions on student outcomes.

Leveraging Technology



Learning Sciences Research Institute, University of Illinois Chicago

The Learning Sciences Research Institute at the University of Illinois Chicago developed 74 scenario-based assessment tasks aligned to the Next Generation Science Standards for middle school students, which have been used by thousands of students across the United States.¹²⁰

Science teachers can incorporate these technology-enabled exercises into their instruction to help students make sense of the natural world, understand engineering challenges and practice applying their scientific knowledge to solve real-world problems. The tasks and supporting resources for teachers are freely available through the Next Generation Science Assessment website. 121



LearnPlatform

<u>LearnPlatform</u> has helped districts, states and learning organizations serving more than 10 million students rapidly evaluate their edtech products' usage and impact on student learning.¹²²

LearnPlatform (recently acquired by Instructure) enables K-12 education institutions to improve teaching and learning outcomes with unique, evidence-based insights to make better operational, financial, product and instructional decisions that build safe, equitable and effective edtech ecosystems. LearnPlatform can validate tools to help districts rapidly evaluate their edtech products' usage and impact on student learning. They can also support states to develop evidence-based procurement processes.

Reflections from Sandra

Taking the Work to the Next Stage

Our education investments have taught us a lot over the past eight years about the challenges teachers and students face. At the same time, the education field has shifted. Previously, a whole child approach in many schools focused primarily on managing student behavior. But today, the whole child approach in many schools has evolved to focus on fostering supportive environments that enable holistic student development — including the importance of relationships, belonging and emotional safety. This is an important step forward, and we are proud to have played a part alongside a community of partners — in helping teachers center students' wellbeing in support of academic achievement and success.

However, in our work and across the field, we've seen that even the most promising resources and practices still aren't reaching enough classrooms. Sometimes, there is considerable investment in

implementing a solution in a small number of schools or districts, but less attention to how what they've learned might be shared to support adoption elsewhere. In other cases, the products of academic research are too theoretical or time-consuming for educators — or even the edtech industry — to implement. What's more, the decentralized nature of our education system makes widespread adoption of evidence-based practices challenging.

While these barriers are daunting, they are not insurmountable. We have learned from our partners and their experiences with thousands of schools across the country about how to better support educators.

1. Technology can play an important role in bringing research-based practices to life in the classroom by making them concrete and immediately implementable by teachers. Instead of being buried inside a research report, well-designed tools can put these practices at teachers' fingertips so they can use them.



Reflections from Sandra

- 2. Any solution must be designed and built alongside educators so that it addresses their needs. This isn't always the starting point for education technology or philanthropy, but it's essential to ensuring tools can meet the needs of teachers and students and can be easily implemented in classrooms.
- 3. Building effective tools requires bringing learning scientists and other experts together with technologists to solve shared problems. A collaborative approach ensures that research informs design, development and testing so that the product is accessible for teachers and improves outcomes for students.

Moving Forward

These lessons are informing our work to develop products to make research-based teaching practices more accessible to all teachers and students. Previously, the bulk of our grantmaking focused on **research to practice**, where we sought to help partners translate research findings into classroom practices. Now our grants will take that work to the next stage and will support the development of research-based tools that can help accelerate progress. We think of it as **research to product.**

Our goal is to partner with educators, researchers and students to build techenabled tools that support the adoption of underutilized high-quality research and content — including projects CZI has supported over the past eight years. Our work will be driven by the challenges educators face in the classroom and co-built with teachers and students.

We know this approach can work because we have seen it in action. Along demonstrated the power of this collaborative model, and we believe it can be applied to other challenges facing educators. Initially, we will focus on areas we know well — such as whole child development, and student and teacher relationships. We are also exploring how to support other areas, including accelerated academic instruction and career readiness.

To do this, we will continue to partner with Gradient Learning, and schools participating in the Summit Learning program and using Along. Over time, we will incubate new ideas and explore new partnerships with others who value this work of translation from research to practice to tech products.

A Commitment to Learning and Partnership

As a relatively new philanthropy, we come to this work with humility. We recognize that there are no easy answers for the challenges in education, and no single organization can transform our education system alone. That's why we are committed to using our resources where we can make the greatest impact, to developing collaborative partnerships, to iterating and to sharing what we learn.

As this report has shown, progress toward a whole child approach to education is possible. We are grateful for the insights and feedback from grantees, supporters, fellow funders, educators and students over the past eight years. We will continue to stand in support of an education system that unlocks the full potential of every student, no matter who they are or where they live.

Thank you.



Sandra Liu Huang Head of Education and Vice President, Product

Annotations

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