From Vision to Practice:

How Educators Are Changing Practice to Meet the Needs of All Learners

EdSurge Research

About EdSurge

EdSurge informs, drives conversation and builds communities to support the future of learning for all.

EdSurge is a leading education news and research organization that covers the people, ideas and technologies that shape the future of learning. Through our work, we aim to help educators, entrepreneurs, policymakers and other stakeholders engage in rich and complex conversations about evolving teaching and learning environments and the technologies and tools that support them.

We do this through three core activities:

- Publishing rich content, including news and research;
- Creating vibrant community through conferences and convenings;
- Providing useful tools to help people find technology that supports their teaching and learning needs.

The EdSurge Research team is skilled at making sense of complex trends in the market and in translating analysis into actionable insights for the industry. Our research is predicated on the belief that the field needs to put smart and actionable research in the hands of those driving change. Our research practices are rooted in our journalistic and investigative bones—we listen, we dig, we cover multiple perspectives and we share information in a compelling way that encourages and inspires action.

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Acknowledgements

The work examined in this report is the second phase of a multi-year project. In this second phase, we showcased stories about how educators around the country are shifting practices to reach all learners. We approach this work with the belief that educator insights and connections are essential to making change across a diverse set of learning environments. As such, educators themselves, form the heart and soul of this project. Their participation—through conversations at Teaching and Learning Circles (intimate, local practitioner gatherings), authorship of articles and involvement in research interviews and surveys—was critical to the design and success of this project. Altogether, hundreds of educators were involved in this project in different ways.

This report brings together the various elements of this project and reflects the work of the many educators who were involved.

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Introduction

The terms "whole child," "personalized learning" and "learning sciences" are used in different ways for different audiences in the education press, in how-to guides for educators, and in promotional materials for edtech companies.[1] Some commentators have dismissed these terms as fads or submitted that the terms require greater clarity and precision to be useful. But it's hard to find a commentator who argues against responding to students' individual needs and circumstances, or who submits that findings in learning sciences are irrelevant to improving educational practice. The basic idea that educators should strive to reach all learners on their own terms is not in dispute. Neither is the idea that evidence and research are important for validating teaching and learning practices.

The project starts from the premise that amplifying educator voices and experiences is critical for catalyzing change in education.

But for all that we know about the importance of reaching learners on their terms and relying on evidence and research, we know comparatively little about educators' perspectives, successes and frustrations. How do educators understand whole child education? What approaches are educators using to address each individual learner? Have educators' practices meaningfully changed with more attention paid to concepts such as social-emotional learning and identity development? To what extent are educators drawing on research or collecting evidence to support their approaches? What barriers stand in their way when they are developing and adopting approaches and models to serve the whole child? And crucially, what can the field at large—practitioners, researchers and supporters—learn from educators themselves?

With support from the Chan Zuckerberg Initiative, EdSurge Research developed this project to respond to these questions.[2] The project starts from the premise that amplifying educator voices and experiences is critical for catalyzing change in education. It's critical for

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[1] A Google Trends report for "whole child" shows an average monthly search rate of 66.8 percent of peak popularity in 2017, 75.5 percent in 2018 and 90.8 percent through April 2019. A Google Trends report for "personalized learning" shows that 2017 had a high average monthly search rate of 76.7 percent. During and before 2014, the rate was 30.6 percent or below. A Google Trends report for "learning science" shows that while the highest level of searching for the term occurred in 2005, the search has maintained a steady degree of viability to date. All calculations based on Google trends data, retrieved April 2019.

[2] In this project, we use the term "educator" to refer to school-based practitioners who work directly with students, such as classroom teachers, administrators, counselors, technology specialists, librarians and related service providers.

empowering fellow educators to make changes to their teaching and learning practice. It's critical for the field at-large to learn from educators themselves. And it's critical for developing supportive networks that can help empower educators to make and sustain change.

In this project, we helped to tell and amplify educator voices through 60 stories from across the United States. (See Appendix A for a full list of these stories.) These stories were told by educational practitioners, EdSurge reporters and researchers. Regardless of author, they all placed the experience of educators at the center.

While an analysis of the stories is the focus of this report, we have also integrated findings from three other elements of this project: Teaching and Learning Circles, surveys and interviews. Together, these other sources of information contextualize the findings surfaced through an analysis of the collection of stories that we published for this project:

- We held Teaching and Learning Circles in 22 cities across the country, attracting 509 registrants overall. (See Appendix B for more information about Teaching and Learning Circles.) Educators of different roles and from different institutions came together to workshop solutions to challenges that they were facing and to share best practices around serving the whole child in facilitated conversations. The Teaching and Learning Circles were designed as a local professional learning and community building opportunity for educators who often face similar challenges. In addition, Teaching and Learning Circle registrants were the primary source of educator voices for the stories that we published for this project.
- We administered pre- and post-surveys to Teaching and Learning Circle registrants, including questions related to current and planned practices to serve the whole learner, challenges, common strategies for addressing those challenges and methods for evaluating the effectiveness of approaches. (See the methodology section for details on the surveys.)
- We conducted follow-up interviews with 11 Teaching and Learning Circle registrants. Interviewees elaborated on their survey responses. (See the methodology section for details on the interviews.)

We want readers to have a better understanding of how these elements fit together and the emerging concepts and lessons visible across the body of work. All of the stories for this project were published on EdSurge on an ongoing basis from July 2018 through May 2019.[3] We sought out educator stories rooted in implementation and anchored in authentic

[3] The 80 stories associated with Phase I of this work were published between June 2017 to June 2018. This report addresses the second phase of work.

experiences with real students and as such, they illuminate common challenges and successes across the field of preK-12 education and provide support and affirmation for educators seeking to change their practice to reach all learners in different ways. However, the individual stories are made stronger when we're able to identify connections between them. Looking across stories allows us a more complete view of what works, what challenges exist and how we can collectively make change. The report is intended to build some of those connections, adding additional value to the already powerful stories we've shared.

The Whole Is Greater Than the Sum of Its Parts: Learning from Stories and Research

The individual stories that we published for this project provide examples of how practitioners and school communities are reimagining how they serve the whole learner through different means, drawing on research and evidence in powerful ways. The stories were designed to give readers a glimpse into the writer's experience, and in many cases, to offer insight into how a reader might take a step—big or small—toward change. For example, a teacher may read a story about an approach for teaching effective feedback strategies in order to foster ideas for improving his students' collaboration and communication skills. A school administrator may read a story about a restorative justice program in order to understand how to develop a more effective approach to discipline in her school. A school counselor may read a story about peer mentoring to surface ideas for addressing an inability of counseling staff to serve students' needs.

Looking across the whole set allows us to make meaningful connections between stories and to contextualize them, drawing on insights from our Teaching and Learning Circles, surveys and interviews.

AN EDUCATOR-FOCUSED, RESEARCH-INFORMED FRAMEWORK

To help us identify patterns and trends across stories, we developed a framework for organizing them. To classify the stories, we generated four themes, each with two to five essential questions. These themes and essential questions incorporate common topics, approaches and concepts from research institutes, nonprofits and philanthropic organizations.[4] The framework also captures questions and topics that educators told us were important at Teaching and Learning Circles, during interviews and through surveys. (For more information on this process, see the methodology section of this report.) We intentionally developed the framework as we were publishing stories, which allowed us the flexibility to categorize stories appropriately and identify gaps so that we could seek and develop stories that responded to those gaps.

A driving purpose for developing the framework was to build a pathway for readers to discover the stories that are most relevant to their needs. As such, the story organization structure corresponds to educators' existing goals for changing their practice. Additionally,

[4] For example, we examined ASCD's Whole Child Tenets and the Chan Zuckerberg Initiative's Comprehensive Student Development framework. We then looked at research that corresponded to common elements, such as resilience and strong relationships, to find language accessible and relevant for educators.

the organizational approach is designed to spur educators' interest in topics, practices and approaches they may not have previously considered.

To achieve these objectives, we used non-academic language in constructing our themes and essential questions. The essential questions are designed to be broad enough to apply to practitioners of different roles, who serve different populations, who have varying levels of support and who have varying degrees of familiarity with whole child education, personalized learning and the learning sciences. At the same time, the essential questions are designed to be specific enough that they resonate for educators.

The result is an educator-focused, research-informed structure that is intended to spur interest, invite engagement and promote discoverability. The language is designed to be accessible and relatable to educators, and the diverse set of questions and stories respond to educators' unique circumstances, resources and interests. Readers can look across the themes and questions to find the stories that are most relevant to them.

Categorization Structure for Stories

Themes		Essential Questions
 **Reaching All Learners**	These stories explore how educators, administrators and school communities are addressing students' needs and circumstances in order to empower all students to flourish as learners.	How are schools designing and modifying their models to better address the needs of underserved populations?
		How are educators addressing trauma, behavior and discipline in ways that acknowledge the social and emotional needs of diverse learners?
		How are educators supporting identity development among diverse learners?
		How are schools partnering with external organizations to provide integrative supports and services for students and families?
 **Building Character and Skills**	These stories explore how educators, administrators and school communities are helping learners build social, emotional and academic skills that will prepare them to proactively address future challenges.	How can students be empowered to become advocates for their own learning?
		How can educators build inclusive communities, foster social awareness and help students develop relationship skills?
		How can project-based learning be used to help students flourish?
		How are educators preparing learners for the work of the future?
		What strategies are educators using to manage stress and promote wellness for themselves and their students?
 **Evidence of Growth**	These stories explore how educators are gathering, analyzing and using evidence to improve outcomes for students and school communities.	What alternatives to traditional academic assessments exist or are emerging?
		How are educators and administrators leveraging data from personalized learning initiatives to advance goals?
		How are professional learning opportunities advancing teachers' goals and helping to improve student outcomes?
 **From Research to Practice**	These stories explore how teaching and learning communities are leveraging research, data and evidence to help students learn more effectively.	How are teaching and learning communities using research, data and evidence to guide practice?
		How are teaching and learning communities drawing on neuroscience research and what we know about how the brain learns to create conditions that will result in better learning outcomes?

In the pages that follow, we examine each of the four themes. We highlight ideas and trends that emerge across stories, in Teaching and Learning Circles and in our surveys and interviews with educators.

Reaching All Learners

These stories explore how educators, administrators and school communities are addressing students' needs and circumstances in order to empower all students to flourish as learners.

Megan Guzman, an English and journalism teacher at Collier High School, a therapeutic, alternative placement school in New Jersey, didn't miss a beat when asked what leapt to mind when she heard the term "whole child education." "It's holding the teacher responsible for not just teaching the subject matter and saying, 'Your job is done,'" Guzman said in an interview. "It's making sure that [students are] taken care of, head to toe," Guzman explained, citing a direct relationship between students' material and emotional needs and their ability to flourish as learners in the classroom.

Guzman is hardly alone in holding this perspective about the value of educators understanding and responding to students' needs and circumstances. Research has shown that problems outside of school (e.g., food insecurity, violence, homelessness, etc.) can have a devastating effect on student performance. At the same time, we know that school environments, and the communities that form within them, can make a difference in academic and social outcomes for students facing adversity.

LARGE-SCALE EFFORTS TO RESPOND TO THE NEEDS OF VULNERABLE POPULATIONS

We've highlighted stories about how educators are addressing the needs of underserved populations in our stories, emphasizing both small- and large-scale efforts to make change. We have also tried to showcase approaches and programs that address common challenges that are complex, requiring creative solutions.

Our stories addressed a diverse range of topics including wraparound school models; school partnerships with external organizations to address student and family well-being; practices that support identity development to encourage learning; and compassionate approaches to discipline and behavior.

Some stories referenced macro school- and district-wide shifts to serve the unique needs of their student populations. Many of these transitions boast impressive results by leveraging educators' commitment and willingness to refine models in response to challenges. For

example, EdSurge reporter Emily Tate profiled one school in New Orleans and another in Washington, D.C., that provide student parents with the support they need to succeed. At the Washington school, a comprehensive pregnancy prevention program and tuition-free daycare center have worked to reduce pregnancy rates by a factor of ten since the 1993-94 school year, supporting higher graduation rates for teen mothers.

Other changes are too new to show substantive results, but their approaches are relevant for educators considering large-scale initiatives to make change in teaching and learning. For example, EdSurge reporter Sydney Johnson profiled the I Promise School (IPS), a public school in Akron, Ohio, that opened in fall 2018. IPS provides wraparound services to students and their families and is well-known for promising its graduates full college scholarships, thanks to funding from professional basketball player LeBron James. But the IPS school model is also noteworthy for its efforts to prepare students to succeed in college. The IPS model includes a partnership with the University of Akron to bring college students to the school to observe and mentor IPS students. Though the school is still new, early results are promising. In addition, IPS collects data on student performance via an app and analyzes data in real-time, responding to problems where necessary. In one case, school officials decided to adjust the class schedule after observing that students were exhausted by the eight-hour day, which was primarily academic.

THE ROLE OF STUDENT VOICE IN DETERMINING APPROACH

Observing students is one way to determine their needs in order to provide appropriate interventions. Our stories explored other ways in which educators are learning about their students so that they can respond effectively.

For example, Jabez LeBret, co-founder and chief of schools at Sisu Academy, described how school officials conduct site visits to prospective students' homes to understand the circumstances of each student's upbringing and build more meaningful relationships. In one case, the school principal noticed that a prospective student had musical instruments in her home, allowing for a deeper connection between school administrators and the student based around the student's otherwise unobservable love of music. Sisu Academy opened in winter 2019, so it's unclear whether home visits will have a lasting impact on students' trust in the school, overall wellness or academic performance. But the visits provide a foundation upon which longer lasting ties can be forged, especially for students who are struggling in ways that aren't immediately visible.

It can be extraordinarily difficult for educators to uncover the challenges their students face outside of the classroom. Doing so requires intentionality, understanding and a commitment

to listen deeply to what students are saying—and noticing what they are leaving unsaid. In another story, Amy Mason, a principal at Madison County Elementary School in Alabama, described how a crisis sparked by a misuse of prescription pills prompted the school to begin surveying students about their social-emotional health to better understand their needs. The surveys revealed that the absence of negative behavior was not a sign that all was well. The school leadership team and staff needed to act to serve students' needs, but they were ill-prepared and required training. Six months after the surveys and subsequent teacher training began, Mason assessed social-emotional growth using the Devereux Student Strength Assessment and results showed that 70 percent of students showed progress. Mason attributes this success to teachers' dedication to exploring student well-being in the classroom and the school's expansion of mental health services in response to the growing need of her students.

Educators in the school began to act on Maslow's Hierarchy of Needs to ensure that students' basic needs were met, propelling more effective learning. To achieve that outcome, educators and school leaders had to commit to accessing, deciphering and responding to a mental health issue that was lurking under the surface. This highlights the opportunities for schools to think more intentionally about student wellness and ways to measure students' success beyond that of test scores and clean discipline records.

Using Audio to Capture Student Voice

This project aimed to capture and amplify educator voices, but the voices of the students those educators are serving are equally important. Again and again, educators told us that student voices and perspectives motivate, challenge and inspire them. Three of our stories leveraged audio to document the lived experience of students:

- Hear Austin Achieve Public Schools student Luz Annette's description of how her mindset toward fighting changed after she went through her school's restorative justice program.
- Hear Louisville student Lian reflect on the connections between a painting and her family's migration from Myanmar to the United States.
- Hear "Ray," a student at an alternative school in the Marietta City School District in Georgia, explain how his outlook has changed as a result of his school experience.

SMALL-SCALE EFFORTS ARE EFFECTIVE, TOO

School- and district-wide initiatives are difficult to pull off; they require buy-in from teachers, school staff, parents and administrators. They may also require a significant investment of time and money, along with the ability to partner with external organizations. For example, EdSurge reporter Stephen Noonoo profiled City Connects, an organization that embeds family support coordinators in schools and leverages connections with nonprofits to respond to student and family needs related to issues such as housing or public assistance. City Connects has collected evidence to show its impact on student performance. Students at schools served by the program have received higher report card grades in comparison to students in schools that do not have City Connects. Chronic absenteeism among students served by the program has also declined.

Despite the reported success of programs such as City Connects, many educators don't work in schools with large-scale embedded programs like this. In fact, many educators face resistance when pitching a new approach or program. In our post-survey for Teaching and Learning Circle registrants, when we asked educators to rank problems and frustrations that they had encountered, a plurality of respondents ranked "resistance from colleagues, school/district leadership or parents" as most acute.

Ranking of Challenges and Frustrations by Survey Respondents

MOST ACCUTE	Resistance from colleagues, school/district leadership or parents
	Lack of human or material resources
	Inability to effectively measure student progress in academic and non-academic skills
	Information/data overload
LEAST ACCUTE	Student behavior and performance

Note: A total of 88 educators responded to this question. Survey respondents were asked to rank the challenges and frustrations in order of importance, marking obstacles they had not encountered with N/A. Results are presented in order of weighted average based on these rankings. See the methodology section for more details on the survey administered to Teaching and Learning Circle registrants after the event.

In response to this reality, a number of educator-writers highlighted approaches that they are implementing independently to reach all learners within their own learning environments. In some cases, these strategies are scaled back versions of larger-scale initiatives such as City Connects. For example, Heather Stinnett, a lead advisor for Khan Lab School in California,

described how scheduling time to speak with her students individually changed the culture of her classroom and sparked improvements in her students' academic performance. As Stinnett learned more about her students' strengths, weaknesses and interests, she was better able to pinpoint areas of individualized instruction to meet their needs and to direct students to one another for help.

Other stories also showed how small clusters of teachers and support staff can work together to serve the needs of individual students. For example, Farhat Ahmad, director of an alternative education program in Marietta, Ga., explained how his staff gained the trust of Ray, a struggling transfer student, by making good on their promises—such as obtaining Ray's prior transcript and getting him a bus pass so he had transportation to school.

Ahmad is clear-eyed in explaining that these efforts are no sure path to Ray's future academic and professional success. "In my experience, stories like Ray's, don't have a guaranteed feel-good ending like that movie, 'The Blind Side,'" he writes. "I'd like to think that maybe the love he got here was enough, but I'm not sure if that's true." However, Ray is performing well academically and Ahmad's approach for gaining trust suggests possibilities for other educators.

The stories related to the theme "Reaching All Learners" suggest that educators' efforts to encourage belonging and inclusion can positively impact academic outcomes and provide the foundation for continued engagement. The stories showed that these efforts can take many forms, whether through large-scale initiatives to respond to the needs of vulnerable populations, or through individual educators' efforts to engage learners. Many factors dictate what scale of approach is most appropriate for serving the problem at hand. Among these factors are available resources such as time, money, committed partners and internal support. As such, large-scale efforts require massive coordination, but can make substantial change. By nature, smaller-scale efforts implemented by an individual educator may be more limited in scope, but the effect can be powerful for the teacher and students involved.

Achieving positive outcomes isn't easy, but these stories show that it's not impossible either. Individually, the stories show pathways for achieving success when educators commit to implementing change. Collectively, the stories offer a vision of educators' potential for reaching all learners on their own terms.

Building Character and Skills

These stories explore how educators, administrators and school communities are helping learners build social, emotional and academic skills that will prepare them to proactively address future challenges.

Craig Seasholes is a librarian and information technology teacher at a public elementary school in Seattle. Seasholes participated in a follow-up interview after attending an EdSurge Teaching and Learning Circle. "My job is to see each person—each student—as they are, and move them forward" he shared when asked to define his role. For Seasholes, that means not only teaching students how to use Publisher or OneNote, but how to be kind. Seasholes says, "Our learning always includes [asking], 'How do we get along?,' because that's also part of moving kids forward."

Like many of the educators we spoke with, Seasholes believes that social and emotional skills can be taught—and that notion is backed up by research. Educators play a critical role in helping students experience growth in non-academic skills such as self-efficacy, resilience and relationship skills, especially when students are faced with severe challenges outside of the classroom. We also know that certain skills beyond academics are crucial for continued success both inside and outside of the classroom. Studies have shown that for many populations, future success is predicated on the development of certain character traits (e.g., perseverance) and skills (e.g., executive function).

> **My job is to see each person—each student—as they are, and move them forward.**
>
> Craig Seasholes, elementary school librarian in Seattle, Wash.

Many educators are taking notice of the relationship between non-academic skill development and success inside and outside of the classroom. In our pre-survey for Teaching and Learning Circle registrants, over half of our respondents stated that they had tried to develop the following skills and outcomes in their students. Additionally, over half of survey respondents indicated that they would like to consider most of these skills and outcomes more in their future practice.

Ordered list of skills and outcomes pursued by over half of survey respondents	Skills and outcomes that over half of survey respondents would like to consider more in their future practice
Perseverance	✓
Social awareness	✓
Self-regulation	✓
Self-efficacy	✓
Sense of belonging	
Identity development	✓
Mental flexibility	✓
Stress management	✓
Moral sensitivity	
Executive functions	
Improved mental health	✓

Note: In the first question, survey respondents were asked to check skills and outcomes that they currently tried to develop in students. In total, 93 educators answered the first question about their current practice. In the second question, survey respondents were asked to check all skills and outcomes that they would like to consider more in future practice. A total of 89 educators answered the second question on future practice. See the methodology section for more detail on the survey administered to Teaching and Learning Circle registrants after the event.

PUTTING STUDENTS IN THE DRIVER'S SEAT, MAKING CHANGES ALONG THE WAY

As our educator-writers indicate through their stories, preparing students to proactively and appropriately address their academic and non-academic challenges is not easy. That's why many of our stories recommended practical approaches that educators could use to encourage students to become advocates for their own learning.

These stories emphasized that there is no quick fix to promoting skills like self-efficacy and independence. Instead, educators showed that it's the combination of program quality and responsive iteration that drives success.

Meghan Tufa, for example, the English department chair at Intrinsic Schools in Chicago, wrote a story about how her school first implemented student-led conferences in 2014 as a replacement for the traditional parent-teacher conference. School officials hoped to convert students from passive observers to active participants in their own learning. For these early student-led conferences, students were given guidance in developing slides to narrate their progress. However, teachers observed little impact on students' academic performance or goals.

Tufa describes efforts to revamp student-led conferences to make them more relevant for students: linking test score goals to college admissions requirements, providing opportunities

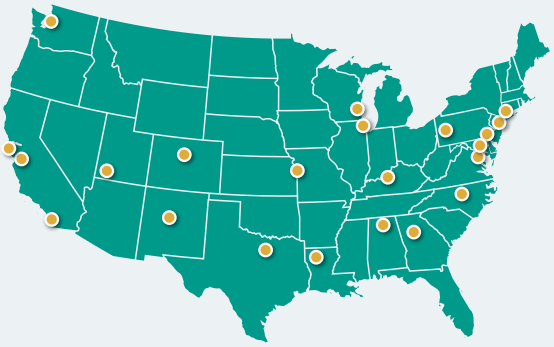
Anatomy of a Teaching and Learning Circle: A Focus on Storytelling

Over the past year, EdSurge traveled across the country to convene and facilitate conversations amongst educators in different roles, across various types of schools. These educators gathered in Teaching and Learning Circles to share about their unique challenges related to serving the whole child and how they're developing solutions to common struggles.

The unifying theme was storytelling, which reflects this project's goal of amplifying educator voices and experiences. The events were designed to build community and empower educators to make changes to their practice. During Teaching and Learning Circles, participants did the following:

- Selected, read and discussed pre-selected EdSurge stories that resonated with them
- Reflected on how they identified with particular whole child tenets
- Participated in structured small group discussions to share personal challenges around whole child education and to jointly reflect, give feedback and share ideas and resources
- Reflected on common elements across the shared stories and discussed ways of moving the work forward

Participants at a Teaching and Learning Circle in Milwaukee, Wis.



We held Teaching and Learning Circles in 22 cities across the United States during the 2018-19 school year. See Appendix B for a complete list of locations.

for students to reflect on growth in non-academic areas such as the school's networking night and connecting conferences year-over-year by involving more of the school's support staff in planning and execution. Tufa explains that these changes resulted in more realistic goal-setting by students, with clear pathways to success. That positive result has tremendous implications. It's too soon to say for sure, but Tufa hopes that attainable goals with related clear next steps will ultimately result in more college acceptances for her students. If that occurs, it would be a profound endorsement for encouraging and supporting student agency, making changes where they are needed.

BUILDING AND SUSTAINING RELATIONSHIPS AROUND REAL PROBLEMS

Our stories also highlighted the importance of supporting students in developing strong relationships, particularly with people and communities outside of their personal networks.

Often these connections are forged in order to solve real problems. For example, Jacquelyn Whiting, a high school library media specialist in Connecticut, shared how she used design thinking to get students to address problems related to social media. Whiting scrapped her original plan to curate content and plan lessons about digital and media literacy after recognizing that students were deeply familiar with social media and she could leverage their connection to it in order to increase engagement. Rather than dictating a prescribed approach, Whiting allowed the unit to become an opportunity for students to work collaboratively to identify and solve problems they cared about. Students consulted with each other and engaged other members of the school community during the user testing phase. Whiting says the result was "empowered learning" that allowed students to think more deeply about their own social media use and to engage more intensely with one another. Whiting's lesson has implications for educators of all disciplines across all settings. It suggests that students who demonstrate ownership over their learning can together develop profound questions and creative solutions that can solve problems both inside and outside of the classroom.

These stories also showed how relationships with people outside of the school community can positively impact the way students learn and understand the world around them. For example, EdSurge reporter Emily Tate explained how a social studies high school teacher in Kentucky is partnering with an organization called NaTakallam to weave virtual visits from a Syrian refugee to living in Turkey into her curriculum. NaTakallam matches a classroom with a refugee, bringing to life current events that can seem distant to many students. Jill Armstrong, the Kentucky teacher, credits the program with bringing global awareness to her students, giving them a chance "to see the world beyond what we have here, in Eastern

Kentucky." Ghenwah Kharbeet, the Syrian refugee whom the Kentucky class regularly speaks with, describes the impact of the program in another way: "At the end, a lot of them say, 'Thank you, it made me realize you're a real person like us.'" That simple sentiment is enormously profound at a moment when our differences often eclipse our ability to connect with one another.

> **"At the end, a lot of them say, 'Thank you, it made me realize you're a real person like us.'"**
>
> Ghenwah Kharbeet, a Syrian refugee living in Turkey whom a Kentucky class regularly speaks with via videoconference

PREPARING STUDENTS FOR THE FUTURE OF WORK

Developing collaboration skills, building social awareness and emphasizing relevance to students' lives are important for preparing students for the future of work. The content mastery needed for future success remains a mystery, of course; we can't predict which computer languages will be dominant or what communication style will be needed in the workplaces of the future. But we know that the flexibility, endurance and willingness to develop these skills independently and as a member of a team can be taught and have implications for lifelong career success.

We showcased several stories in which students developed these skills through innovative projects or experiences designed to simulate real-world work environments. For instance, Tyler Gaspich, the director of academic technologies at the Academy of Notre Dame de Namur in Villanova, Penn., described how his school asked students to apply concepts they learned in their Design Thinking and Entrepreneurship class to a specific business problem. The class worked in groups to develop a product, make pitches and take on business roles to successfully market and sell their products. No real money changed hands, but the results were still very real: students became deeply invested in working together to solve a real-world problem. Gaspich writes, "The goal of [the] class has always been to teach [students] what they're capable [of] in the real world. But it's even more satisfying to watch them teach it to themselves."

MANAGING STRESS AND PROMOTING WELLNESS THROUGH RELATIONSHIP-BUILDING

Even the best initiatives and lesson plans to help students cultivate the skills necessary to confront challenges will do little good if we don't promote both student and educator wellness.

What We Learned From Hosting Teaching and Learning Circles

Educators participate in a Teaching and Learning Circle in Seattle, Wash.

The educators who attended Teaching and Learning Circles weren't the only ones who learned and grew from the experience. Engaging in social listening at the events, we also gained the following insights that have implications for the larger preK-12 teaching and learning community:

Storytelling is empowering. Sharing stories is an effective way of engaging educators and prompting honest and constructive reflections and critiques. Teachers, administrators, counselors and other practitioners have few opportunities to share their stories and brainstorm approaches for improving their practice with peers. Attendees appreciated this opportunity, with all but two of the 69 people who evaluated the events indicating that they were satisfied or very satisfied with the experience.

Educators crave opportunities to build meaningful connections. Educators crave structured opportunities to connect with one another across schools, districts and regions. As one attendee reflected in a survey, "Teachers actually work a lot in isolation and teacher-to-teacher engagement, discussion, sharing [and] observations are very much needed for growth and encouragement. Thank you for your intentional direction for teachers." Another attendee commented, "It was an incredible experience to speak to so many regional colleagues."

> **"Teachers actually work a lot in isolation and teacher-to-teacher engagement, discussion, sharing [and] observations are very much needed for growth and encouragement.**
>
> An attendee at a Teaching and Learning Circle

Outreach to new communities is hard. We experienced lower registration numbers and turnout for Teaching and Learning Circles than we had hoped. In some cases, this adversely affected participants' experience of the event. As one attendee wrote in a survey, "I feel like it could have been even more successful…if there had been greater participation!" While a host of factors likely contributed, we believe that there was one overwhelming problem: we didn't always have deep connections locally, making it difficult to bring in educators outside of EdSurge's orbit. Educators are incredibly busy people with enormous responsibility and it's hard for them to take a risk on an event where they don't necessarily have a personal connection.

That's the verdict of many of the educators whom we interviewed including Rana Hafiz, an eighth grade math teacher at a public school in Connecticut. In a follow-up interview after a Teaching and Learning Circle, Hafiz explained, "We talk about growth mindset but it's never really put into place because it's not reflected in curriculum and assessment. We need to communicate with parents about what makes a good student because these students are under a tremendous amount of stress that's not healthy."

Promoting wellness for both students and educators is easier said than done. Schools must prepare students to master challenging academic standards, and wellness and stress management initiatives are often seen as supplementary to these academic efforts.

In a story that she penned for EdSurge, Amanda Novak, an assistant principal at Westgate Community School in Thornton, Colo., described the challenge of finding the resources to address students' needs effectively. "We had a capacity issue: too many kids needed support [from counselors], but there weren't enough adults or hours in the day to provide it." The problem of inadequate resources prompted a creative solution. When the school's counseling staff was at a breaking point, Novak worked with others to create a peer mentoring program to help address the school's growing mental health crisis. The new program wasn't an ordinary peer mentoring program in which mentors adhered to a memorized script. Instead,

Learning How to Manage Stress—for Teachers

Many of our stories focused on educators' efforts to promote wellness among students. But educator wellness is equally important—and often neglected in conversations around serving the whole child.

Patricia A. Jennings explored this issue in a piece aptly titled, "Teaching Is As Stressful as an ER. These Calming Strategies Can Help." The article clearly hit a nerve, becoming one of our top performing articles as evidenced by unique page views.

In the article, Jennings, a former teacher and school leader, and now associate professor of education at the University of Virginia School of Education and Human Development, writes about the clear need to help teachers manage their own stress:

> **"The teaching profession doesn't just begin and end during class time. It's increasingly defined by unrealistic expectations; extensive meetings and other instructional demands; and difficult conversations with principals, administrators and parents. While we must address the contextual issues that overburden our educators, we must also take the steps to build their resilience."**

the mentors jointly created the program with educators at the school. It took time and commitment, but Novak believes it was worth it. She reports that the program not only increased capacity for counselors to serve students who were most in need, but also changed the school's culture. Students built positive connections across grade levels and learned how to talk to one another—and how to listen.

Not all educators are able to create and implement approaches of the scope that Novak and her colleagues developed. That's why it's also important to consider smaller-scale approaches. Several of our stories dig into practical strategies that educators are using to help students manage stress. In one such story, Erin Haley, a special education teacher at The Bayshore School in Daly City, Calif., wrote about how she's using yoga to help students release stress. Haley is experimenting with using pre- and post-assessments to gauge the impact of the program. Already she has seen improved engagement and has built positive relationships with students through yoga. Haley attributes part of her success to being honest with her students, acknowledging the fact that at times, she had no idea what she was doing. This honesty and openness broke down barriers between Haley and her students, making them all active learners in search of an approach that worked.

The stories related to the theme "Building Character and Skills" suggest that successfully teaching to the whole child involves supporting students in building and sustaining relationships with their peers, teachers and individuals outside of their personal networks. They showed how strong relationships between educators and students are predicated on educators taking students seriously as guardians of their own learning, empowering them to take responsibility and set realistic goals. According to many of our writers, students rose to the occasion when they were given structured opportunities to apply skills to real problems; in such situations, students not only gained practical experience and developed new skills, but they also gained confidence. As such, these stories collectively showed that strong relationships and collaboration skills, which are so critical to the future of work, are enhanced by instituting a model of learning that propels students to advocate for their own learning to solve authentic challenges.

Evidence of Growth

These stories explore how educators are gathering, analyzing and using evidence to improve outcomes for students and school communities.

The educators we surveyed and interviewed expressed excitement about integrating specific approaches or adopting large-scale initiatives to better serve the whole child. However, in the survey that we administered to Teaching and Learning Circle registrants after the event, only four of 79 educators strongly agreed that they had good strategies for measuring the success of whole child approaches and in interviews with educators, their excitement often dissolved into anxiety and fear when we asked them how they intended to measure the effectiveness of the changes they hoped to make.

In interviews, educators frequently expressed frustration that the task of gathering, analyzing and using evidence was overwhelming. With a host of other responsibilities—including getting a new program up-and-running or introducing a new instructional strategy or approach—educators have little time to look at evidence. As Lindsey Own, a STEM integration specialist in Seattle explained, "I bought a bunch of books on evaluating the effectiveness of programs, but I haven't figured out how to do it."

We experienced part of this challenge when we worked with writers to include evidence of impact in their stories. When asked questions like, "What evidence do you have that this change is supportive of student growth?," or put more simply, "How do you know what works?," the majority of our writers hesitated to respond. It wasn't that they didn't know what the term meant, it was a lack of confidence in the types of evidence they had to share. Many of them began probing to learn more about what counts when we talk about evidence. Our editors report that after conversations, they typically saw a mindset shift as writers started to broaden their definition of the term and felt validated in the kinds of data they collected and evidence they had to share.

Educators' excitement often dissolved into anxiety and fear when we asked them how they intended to measure the effectiveness of the changes they hoped to make.

Many of our writers perceived "data" as quantitative indicators and were used to analyzing test scores to gauge students' academic progress. But the types of data they used to mark academic progress didn't necessarily reveal growth in the areas they were working toward improving such as a student's newfound ability to collaborate effectively or a student's growing willingness to take initiative. To address this common problem, we worked with writers to dig into how they're gathering, analyzing and—crucially—using evidence to show growth for students.

MORE TO MEASURE THAN READING, WRITING AND ARITHMETIC

It's unsurprising that educators often struggle with how to measure student progress on skills like critical thinking or creativity. This problem is not unique to education. Employers don't always agree on how to define these skills or how to measure mastery. Furthermore, traditional assessments don't always evaluate those skills. However, the field of assessments is rapidly changing. EdSurge reporter Emily Tate wrote a two-part story on the "playful assessments" that MIT researchers are developing and one school's implementation of these assessments. Unlike traditional tests, so-called playful assessments occur during learning time. The assessments involve teacher-designed rubrics and activities through which the assessment can be administered and incorporate elements of self-reflection and peer evaluation.

For example, during a lesson at Community Public Charter School in Albemarle County School District in Virginia, Tate observed teachers hand students slips of paper representing different skills taught through the learning project (e.g., troubleshooting) with notes about how they demonstrated that skill. Students saw their progress documented in real time and teachers had access to the slips for evaluation later. The non-traditional assessments being piloted at Community Public Charter School are still being developed, but they suggest a promising way to respond to educators' frustration at not being able to measure non-academic skills effectively. Furthermore, they put the educator front-and-center when it comes to figuring out what should be measured and how to assess it.

SMALL STEPS TOWARD USING DATA TO MAKE BIG CHANGE

Still, evidence matters little if it is not used. Our stories explored examples of how individual educators, schools and districts are using evidence to make change. Our stories showed that evidence-informed changes can be massive—but successful efforts are typically preceded by a more limited pilot with changes made in response to data gathered from early adopters.

For example, EdSurge reporter Emily Tate profiled the Dallas Independent School District's efforts to use evidence from a pilot to inform its roll-out of personalized learning initiatives to more schools across the district. In 2015, Dallas ISD selected eight schools out of 36 interested schools to pilot the program; two of the eight schools received grant funding from the Bill and Melinda Gates Foundation to implement a more comprehensive personalized learning program. The typical program included technological interventions as well as more student voice in aspects of school culture (e.g., inviting students to ask questions of candidates during the teacher hiring process).

Evidence collected during the pilot program—including qualitative data from "empathy interviews" with students—revealed a number of challenges. First, older students had trouble adapting to the technology used in the personalized learning initiative. High schoolers in the pilot saw a 7.5 percent decline in their end-of-course English exam scores. It's unclear whether that dip was caused by the personalized learning initiative, but the drop was notable when compared with increases in test scores seen among younger students in the pilot. Second, the various stakeholders in the project (e.g., students, teachers and administrators) spoke about the project in different ways, leading to an inability to communicate about measures of success for the program.

These two challenges led officials at Dallas ISD to make changes when they rolled out the program to additional schools. They introduced technology to older students more incrementally and created a personalized learning rubric that all stakeholders could use. District administrators are also beginning to think about how to measure students' sense of belonging and other qualities that are harder to quantify.

Individual educators, schools and districts can learn from Dallas ISD's approach. First, the district committed to getting buy-in and proving efficacy before rolling out the initiative district-wide. Second, the district's leadership team made changes based on what it learned during the pilot. Tate's reporting on Dallas ISD's efforts offers a roadmap for educators to make profound changes through informed and incremental modifications.

WORKING WITH DATA THAT EDUCATORS ALREADY HAVE

District leadership teams aren't the only ones who are gathering, interpreting and applying data in order to make change. We also told stories of individual educators who are revamping or refining their practice based on evidence that they already have. For example, Christine Witcher, a science, innovation and technology teacher in Bellevue, Wash., wrote about how she is using evidence to evaluate and make improvements to the resubmit policy she implemented in her classroom. The policy, which encourages students to revise and

resubmit their work, was designed to promote focus on the learning process during a period when the school was shifting to standards-based grading. It was intended to shift from a classroom culture focused on grades and scores, to one that valued the process of revision. The opportunity to resubmit hinged on integrating feedback—delivered through both technological and non-technological formats—into the revision process effectively. That way, the resubmission process was more about implementing feedback to improve learning rather than an opportunity to achieve a higher grade.

Witcher analyzed data she had already collected (e.g., test scores, the number of times students were resubmitting work per assignment, etc.) to determine how well the new policy was meeting its objectives. Witcher was initially concerned when she noticed that the average number of resubmits per assignment dropped from 1.5 to 1.2 in the 2018-19 school year. However, Witcher had an epiphany when she looked at this data point in combination with two others: students' improved test scores and a survey of student behavior prior to resubmitting work. The result was thrilling for Witcher as she realized that students had actually achieved the goal that she had set out for them. Witcher concluded, "Fewer students need to resubmit their work, because they are revising their work in response to feedback before it is due."

The stories related to the theme "Evidence of Growth" show a wide range of possibilities for educators, schools and districts hoping to collect, analyze and use data meaningfully to improve learning and demonstrate growth. Some of these stories examined new approaches to assessment, particularly those designed to capture evidence of student progress toward difficult-to-measure social and emotional skills like communication and self-regulation and character traits like perseverance. But whether evidence-gathering efforts measure the effectiveness of a strategy implemented by an individual educator or a district-wide curricular initiative, educators would be wise to remember that data should be evaluated incrementally, and changes should be rolled out in response to data. For educators who seek to develop more evidence-based approaches to evaluating the efficacy of their efforts, it's key to remember that while leveraging data to guide practice requires careful work and thought, evidence isn't just the domain of data analysts and that using evidence needn't be a full-time job.

Editors' Picks

As editors, we've been humbled and gratified by the incredible opportunity to support educators in crystallizing their ideas and turning their stories into published work. Without the support of this project, many of these stories, which have resonated so strongly with our audience, would have gone untold. Along the way, we've encountered a handful of stories that have moved and haunted us and that have spurred us to think about evidence and impact in new and profound ways. Here are some of these stories:

- For most teens, moving to a new school is overwhelming. For immigrant teens, the move to the U.S. can be fraught with difficulty but also a path to freedom. That's one of the themes students are exploring in spoken-word essays about their journeys here. Teacher Donna Neary **explains** the project, a collaboration with a local art museum that's exploring identity and place in new ways.
- Anthony Pineda had a difficult childhood. School wasn't much better, and things got even harder when he became a father as a teen. His one salvation? Hip-hop music, which gave him purpose and helped him heal. Now he's a music teacher, helping his kids write lyrics and produce tracks to express themselves. And it's working: "I cannot tell you how many youth have brought me to tears," he **writes**.
- For Karen McDonald's eighth graders, the two most dreaded words in the English language were "peer feedback." The problem, she **realized**, was that students got anxious because they didn't intuitively know how to write helpful feedback. So she taught them—then made the whole thing anonymous. That's where things started to get interesting.
- If you're a teacher, chances are you've used a micro-writing activity at some point. These quick exercises are often used as warm-ups or to check for understanding. But high school English and journalism teacher Bryan Christopher is **using** micro-writing regularly in his classroom to support identity development and to build a sense of belonging.
- We can make classrooms more inclusive—we just need to ask the right questions. For the last two years, former middle-school humanities teacher Kristin Leong has been **documenting** students and teachers from around the world and asking them two questions focused on humanizing the cultural gaps that exist in schools.
- "Technology integration doesn't happen overnight. But without effective, hands-on PD, no matter how much time you have, it won't work," **writes** technology coach Faith Plunkett. That's why she started Spark Lab, a hands-on PD lab where teachers come to learn, explore and ask questions about new tools they want to use in their classrooms.

Students in the A2G program. (Photo: Donna Neary)

Peer editing assignments (Photo: Karen McDonald)

Portraits from ROLL CALL (Photos: Kristin Leong)

Learning new tools at the Spark Lab (Photo: Faith Plunkett)

From Research to Practice

These stories explore how teaching and learning communities are leveraging research, data and evidence to help students learn more effectively.

Kimberly Rues, a preK-6 librarian in Lee's Summit, Mo., is stretched thin. Rues shuttles between two schools and is responsible for partnering with teachers to support students in reading, teaching digital literacy skills and curating the schools' book collections to accommodate both student engagement and discovery. And that is to say nothing of Rues' clerical responsibilities: placing book orders, sending overdue notices, and updating the libraries' catalogs. With so much on her plate, Rues has turned to "values-based prioritization," a system to privilege tasks that are most important. In a follow-up interview after attending a Teaching and Learning Circle, Rues explained, "I have to keep in the forefront of my thoughts that kids come first. I take care of the things that are about the learning and the kids first, followed by teachers. I have to be okay about not getting some things done."

Rues is hardly alone. And for busy educators, consulting relevant research is one of the first things to go from their list—when it appears on that list at all. When we surveyed educators about what resources they wish they had to address a challenge they encountered, "better access to research on teaching and learning" appeared as the eighth most important resource on a list of nine. Instead, educators cited the need for resources from within their school community—resources that could have an immediate impact on their teaching practice. These included the ability to work collaboratively with other educators and support staff, more time for planning and more opportunities to share strategies internally. Studies have also shown that educators are much more likely to discover new approaches or technology from trusted resources, professional development opportunities and colleagues, not from scholarly research.

Our own pre-event survey of Teaching and Learning Circle registrants confirmed this point. Education websites and internet sources ranked higher than they

> **I have to keep in the forefront of my thoughts that kids come first.**
>
> Kimberly Rues, preK-6 librarian in Lee's Summit, Mo.

likely would with a less engaged survey population. (Survey respondents all had familiarity with EdSurge and had registered for a Teaching and Learning Circle.)

Where do you go to find information about the whole child? Please select all that apply. List ordered in descending order by number of response	
More than 60% of respondents	Education sites such as Education Week, EdSurge and Edutopia
	Sources that I find by searching the Internet
	Conferences
	Colleagues in other schools or organizations
	Colleagues within my school or organization
60%	
Less than 60% of respondents	Publications from professional associations to which I belong
	Scholarly research and reports
	Webinars

Note: A total of 93 educators answered this question. See the methodology section for more details on the survey administered to Teaching and Learning Circle registrants before the event.

Scholarly research about teaching and learning is usually not designed to serve individuals who work in preK-12 classrooms. Whether it's inaccessible language or a lack of actionable takeaways, these studies don't always have the immediate impact in the field that they otherwise might. To combat this issue, we published a number of stories that translate research findings for preK-12 educators. These stories unpack salient findings and explain why they're relevant for educators.

For example, Julia Freeland Fisher, director of education research at the Clayton Christensen Institute, explored the importance of a "web of connections" for students' success in a number of areas, including the ability to leverage relationships to obtain employment in the future. Fisher aggregated, synthesized and translated a number of studies to show that while the relationship between teachers and students is undeniably critical for student growth, efforts to personalize learning for each child need to incorporate real-world connections between students and multiple adults—not just one teacher.

Fisher illustrated how the concept of developing a web of supportive adults works by bringing in real examples of how educators and schools are leveraging this research to

provide opportunities for their students to build powerful personal connections with adults. For example, Piedmont City School District in Alabama implemented "Team Time," in which teachers and staff members meet with small groups of students and those relationships continue each year. And the "World of Work" program in Cajon Valley Union School District in California builds relationships between students and local employers via an online platform.

Fisher's story illustrates how articles for this project are breaking down barriers. The piece allows educators to access research studies to which they are typically not the intended audience and provides concrete, practical examples to educators eager to draw on the research to improve their practice.

APPLYING RESEARCH FINDINGS IN CLASSROOMS AND SCHOOLS

Our stories also illustrated how educators are using learning science research and what we know about how the brain learns to inform their own practices or to implement new school-wide policies and programs. These articles were designed to serve as a primer on implementing research-backed strategies for educators who don't have the time to consult the research on their own.

For example, Dr. Pooja K. Agarwal, a cognitive scientist and founder of retrievalpractice.org, a website dedicated to illustrating how to use retrieval practice to improve learning, explained the research behind instructional practices that are already in place in many classrooms. Aptly titled, "You're Already Harnessing the Science of Learning (You Just Don't Know It)," Agarwal's story matched research-backed approaches to learning (e.g., retrieval practice and spaced practice) with the instructional strategies that incorporate those approaches (e.g., think-pair-share). The article demystifies learning science by both validating existing practices and encouraging educators to adopt new ones that are research-backed. Agarwal's story offers a way for educators to get their feet wet in learning science research, making future forays less daunting.

Similarly, Patricia Bain, a veteran K-12 teacher in Columbia, Ill., explained how she applied feedback-driven metacognition and retrieval concepts in her classroom. Bain substituted homework with mini-quizzes in which students wrote down what they recalled from the previous lesson. Bain led immediate reflection sessions to get students to reflect on what they were able to retrieve and what topics and concepts they needed to study. Her own preparation time shifted from grading homework to using the mini-quizzes to surface trends and planning lessons that responded to what she observed. Bain saw an increase in student test scores after rolling out these strategies.

Bain explains that this method also helped students gain confidence. "I often teach students who react with surprise when they do well in my class. 'But I've never done well in history,' they say. This is almost always followed by a common, heartbreaking confession. 'I'm not smart,'" Bain writes. Bain credits her application of learning science research to reversing this trend. Her article serves as a primer for educators interested in acting on learning science research findings in ways that promote both academic and non-academic success for students.

Learning science research can also form the basis for school-wide change. Glenn Whitman, director of The Center for Transformative Teaching and Learning at St. Andrew's Episcopal School in Potomac, Md., explained that his school's daily schedule was failing on several measures. Class periods weren't long enough for teachers to offer the type of instruction known to be effective. Since all classes occurred daily, homework loads were heavy even though researchers know that homework isn't effective if there's too much of it. And students weren't getting the sleep needed for effective memory. Whitman's school revamped its daily schedule in response to this research with input from the community. The end result was a schedule with longer block periods, fewer class meetings per week, less daily homework and a later start time. Whitman's piece shows what can be accomplished when educators commit to examining and acting upon research related to their school-wide goals. Thanks to Whitman's piece, educators don't need to reinvent the wheel; instead, his story provides a starting point for making change.

The stories related to the theme "From Research to Practice" suggest that learning science research can be applied in effective ways to improve student learning outcomes and confidence, but the findings need to be presented in accessible ways and the applications need to be clear and responsive to educator concerns. As our stories demonstrate, research can be presented in accessible and actionable ways for educators, pointing to common practices that are research-backed. Our stories provide examples of how educators are contributing to and harnessing research, providing models for other educators who seek to leverage learning science research to make substantive change. Given the vastness of the field of learning science, we see an opportunity for continued work to bridge the divide between learning scientists and educators, focusing on applying research in preK-12 schools and classrooms and providing more opportunities for educators to help shape research about teaching and learning.

Conclusion

Our stories and research have surfaced many ways that educators are responding to the needs of the whole child in order to improve learning outcomes, foster a sense of belonging and community, develop empathy and promote wellness. Individual educators and school and district communities do this work in myriad ways. The stories in this project have shown that different problems require different solutions at different scales, from a teacher using data science to level the playing field for students who were not experiencing success in his class to a school providing wraparound services in response to struggles articulated by students.

In addition, the resources available and level of commitment from different stakeholders greatly impact both the implementation and success of the solution. In one case, reaching individual learners on their own terms may suggest the need for a wellness program directed at young males of color. In another case with different conditions, reaching all learners may involve using sports as an entrypoint for cultivating students' sense of social awareness. Different conditions dictate different approaches.

Our stories show that many educators are adopting practices to address learners' social-emotional well-being and identity development, often teaching non-academic skills in the context of academic instruction: one teacher used a micro-writing exercise to teach effective writing while simultaneously identity development. In another example, a science teacher used a robotics and STEM class as a vehicle for encouraging problem solving and creativity in students.

In our survey and interview findings, and through working with our writers, we found that educators often underestimate their ability to collect and analyze evidence of the efficacy of these practices. However, in many cases they are developing creative and replicable approaches to understanding whether and how their approaches work; they just don't always see these approaches as valid. We've provided examples of what evidence can look like and how it can be used—whether it's collecting student reflections about how their team functioned during a collaborative project and using these to jointly craft the next set of project goals, or investigating how and why spaced practice helps kids learn. In other cases, we've shown how academic research can be used effectively in learning environments—and how educators are translating that research for their students. For instance, one educator-writer explained how the program that she runs teaches students cognitive science concepts such as metacognition or neuroplasticity, resulting in better learning outcomes.

What unites all of these efforts to serve the whole child is a sincere belief that educators have a critical role to play in facilitating student progress. Educators can't protect students from every challenge they'll face, and it's inevitable that educators will make missteps along the way. However, this project demonstrates that educators can make transformative change, preparing learners to tackle future challenges with determination and grace. This project enabled educators to share their experiences, speak openly about the challenges they've faced along the way and celebrate their successes. Collectively, the body of work can inspire educators hoping to make changes to their practice in support of the students they touch.

But too many educators' stories of change go untold, especially when it comes to efforts that were unsuccessful. This is problematic because it means that many educators aren't learning

Tangible Impact

Throughout this project, we've seen educators struggle with how to measure the effectiveness of a new classroom strategy or approach to learning. Similarly, we found capturing and documenting the impact of the 60 stories in the project to be complicated. Certainly, quantitative analytics that reflect audience reach and engagement are important. However, those numbers don't tell the whole story. The stories in this project have affected writers and readers in profound ways. Here are a few examples:

- **Educator-writers had an opportunity to share their experiences to inspire their peers.** For example, after publishing **her story**, an Alabama instructional coach heard from educators from around the country. The writer emailed our editor, "I've had close to 100 emails from people that have read the article! That doesn't include the people who have reached out on social media. We've scheduled close to 30 visits so far, and have heard from four different countries about doing a virtual open house! Thank you so much! I feel like we've only just begun with the impact that the Spark Lab is going to make."
- **The press took notice of the canon of work, sharing with wide audiences.** For example, influential education writer Alexander Russo highlighted EdSurge reporter-authored pieces for this project in his weekly newsletter.
- **Educators received local recognition of their work.** For example, Farhat Ahmad, director of an alternative education program in Marietta, Ga., was ecstatic when his school district took notice of **his story**. He shared the news with an EdSurge editor, writing, "The article is the byline for the district newsletter!!!"
- **Educators became recognized experts.** For example, an Alabama principal was contacted by journalists from BBC and CBS National News after writing a **story** about how her school changed for the better after a prescription pill crisis. The journalists were writing about Alabama's opioid epidemic and wanted her perspective about using Narcan injectors within the state's school system. Her perspective was included in a **BBC story** soon after.

about how to overcome challenges that they commonly face during the change process: overcoming internal and community resistance, finding the time and material resources to develop new programs and gathering and using evidence to implement novel strategies and evaluate their effectiveness. When educators don't share these struggles, it's hard for them to form networks of support, which are critical to success.

Philanthropic organizations, nonprofits, media organizations, research groups and schools can and should play a role in helping educators share their stories, empowering connections between members of the learning ecosystem. For example, philanthropic organizations can urge grantees to openly discuss their challenges along with their successes. Media organizations can ask their communities to be a part of the stories that they're sharing. Researchers can make their findings accessible and actionable for educators. And schools can provide more opportunities for people in different roles to collaborate.

Of course, such changes are seismic. They'll require the time, money, expertise and—crucially—enormous dedication and willpower from the community. But if the educators who shared their voices for this project can make this commitment to amplifying educator voices to serve the whole child as an individual, so can we. The stakes are too high not to shirk our duty.

For Further Investigation

Well-told educator stories are powerful. We need to hear more of them.

More Voices From Different Kinds of Educators

This project revealed that a collaborative team, rather than one individual, serves the whole learner best. We often heard from educators that many other school-based practitioners and community members contributed to student success. As such, there's a greater need for stories from educators who are not classroom teachers or administrators—guidance counselors, instructional coaches and aides, instructional technologists, school psychologists and others who have a profound impact on student progress and school communities.

Deeper Coverage of Certain Topics

Our research also revealed a need for greater coverage of certain topics, among them the following:

- Mental health
- Alternative approaches to discipline
- Future of work
- Professional learning
- Wellness

Methodology

This project consisted of five elements. First, we conducted a literature review of research related to whole child education, personalized learning and the science of learning to inform the various activities associated with this project. Second, we published 60 stories between July 2018 and April 2019. Third, we convened 22 Teaching and Learning Circles between August 2018 and April 2019. Fourth, we conducted two surveys: a pre-survey to 133 Teaching and Learning Circle registrants (September 2018 through April 2019) and a post-survey to 115 Teaching and Learning Circle registrants (November 2018 through April 2019). Fifth, we conducted interviews with 11 educators between February and March 2019.

PRE-SURVEY FOR TEACHING AND LEARNING CIRCLE REGISTRANTS

We administered a pre-survey to Teaching and Learning Circle registrants for all but one event. The 26-question survey was designed to prepare participants for the Teaching and Learning Circle; provide information about attendees to the event facilitator; and ground future research efforts. The survey included consent to participate and skip logic structure. Testing indicated that the survey could be completed within six minutes. The survey was typically sent two days before the event.

We received valid responses from 133 event registrants, representing a response rate of approximately 28 percent.

POST-SURVEY FOR TEACHING AND LEARNING CIRCLE REGISTRANTS

We administered a post-survey to Teaching and Learning Circle registrants after the event. The time after the event varied from five months (for earlier Teaching and Learning Circles) to one week (for the final Teaching and Learning Circle). The 39-question survey was designed to provide the EdSurge Research team with information about how educators were thinking about new approaches for improving teaching and learning; to collect information about educators' experiences at the Teaching and Learning Circles; and to source authors for stories and interviewees for further research efforts. The survey included consent to participate and skip logic structure. Testing indicated that the survey could be completed within eleven minutes.

Survey respondents who consented to participate in the survey had the opportunity to enter their email addresses in a lottery for one of four $25 Amazon gift cards.

We received valid responses from 115 event registrants, representing a response rate of approximately 23 percent.

INTERVIEWS

We interviewed 11 educators for this project. The goal of these interviews was threefold: to provide additional insight on anecdotes written in survey comments, to inform our approach to story analysis and organization and to source authors for stories.

Interviewees were sourced from post-Teaching and Learning Circle survey respondents. We aimed to select educators who described interesting practices and perspectives related to whole child education, looking for diversity in geography, school type and role.

We developed a standardized interview protocol and used it to conduct video interviews that ranged in duration from 30 to 60 minutes.

Each interviewee received a $25 Amazon gift card as an incentive for participation.

Appendices

Appendix A: Stories

7/24/18	You're Already Harnessing the Science of Learning (You Just Don't Know It)
7/25/18	How Data Science Adds Computational Thinking—and Fun—to Gym Class
8/24/18	Elementary School Wellness Program Helps Young Males of Color Cultivate Their Identities
9/18/18	How 1-on-1 Time With Students Made Me a Better Teacher
9/19/18	How Genius Hour Helps Kids Connect What They're Learning in School to Their Future Goals
9/20/18	LeBron James' College Promise Starts Long Before Tuition Fees Are Waived
9/24/18	A Tiny Thanks Goes a Long Way — in Helping Students Build Social-Emotional Connections
9/25/18	Why Giving Kids a Roadmap to Their Brain Can Make Learning Easier
9/28/18	Why a Web of Connections—Not a Single Relationship—Should Surround Students
9/28/18	How a Composting Initiative Led to the Growth of an Unexpected Learning Space
9/30/18	Micro-Writing is Having a Macro Impact on Identity Development
10/8/18	What Students Learned When They Made Robotics Relevant to Their Lives
10/17/18	Adolescent Wellness Program Builds Flexible Learners
10/31/18	The Secret to Student Success? Teach Them How to Learn.
11/1/18	After Early Results, Personalized Learning Is 'Quickly Becoming District-Wide' in Dallas
11/12/18	What's in a Name? The Potential for Students to Self-Advocate
11/20/18	Kid-Tracking Sensors May Not Be the Wildest Thing About This Montessori Model
11/27/18	Teen Mothers Need a Lot of Support. This New Orleans School Actually Provides It.
12/10/18	Is Assessment Ready to Move Beyond Standardized Tests? These MIT Researchers Think So.
12/11/18	How Playful Assessment Unseated Standardized Tests at One School
12/13/18	How Anonymous Peer Editing Changed the Culture of My Classroom
12/26/18	Teaching Is as Stressful as an ER. These Calming Strategies Can Help.
12/27/18	Learning to Breathe: Educators Use Yoga and Meditation to Reduce Burnout
1/7/19	Channeling Students' Passion for Sports Into Social Awareness and Bringing Change
1/9/19	One Teacher's Plan to Close Culture Gaps in Schools
1/14/19	Our Student-Led Conferences Were Falling Short. Here's What We Changed.
1/16/19	Here's What Happened When Students Solved Social Media Problems With Design Thinking
1/18/19	Student Pushback Is Frustrating, but It Made Me a Better Teacher
2/1/19	For Today's Kids, Playing Nintendo in the Classroom Isn't Just a Dream

Appendix A

2/1/19	Meet the Support Network Addressing Out-Of-School Challenges for Every Student
2/8/19	Inside the Wraparound Model That Puts Student Voice Front and Center
2/13/19	How This Business Simulation Prepared My Students for 21st-Century Careers
2/19/19	Using Neuroscience to Launch a Research-Informed School Schedule
2/26/19	How a Prescription Pill Emergency Woke up Our School Community to a Mental Health Crisis
2/27/19	How an Alternative School Helped One Student Find His Way From Suspension to Graduation
3/12/19	How Improving Student Feedback and Teaching Data Science Restored Our Classroom Culture
3/13/19	Growth over Grades: How a Resubmit Policy Is Helping Us Build a Culture of Revision
3/13/19	Can a Neuroscience Video Game Treat ADHD?
3/15/19	This School Was Failing at Its Mission to Graduate Every Student. Then It Opened a Day Care.
3/15/19	Teaching Empathy is Powerful. This Film Made It Possible.
3/19/19	Counselors Couldn't Keep Up With Our Growing Mental Health Crisis, So Peers Stepped Up
3/21/19	In These Divisive Times, Program Pairs Students with Refugees Around the World
3/22/19	How Visiting Kids at Home Can Help Us Provide a Better Experience in School
3/26 /19	When Zero-Tolerance Was Failing Students, This School Turned to Restorative Justice
3/28/19	How a Fourth-Grader Turned Me Into a Book Detective
4/1/19	High School Immigrants Share Stories of Hardship and Hope
4/3/19	'Homeschooling with Jetpacks': Inside a First-of-Its-Kind Co-Learning Community
4/3/19	Can Mentorships Get More Girls Into STEM Subjects?
4/6/19	This Teacher Started a Hands-On PD Lab That's Sparking Change Across the District
4/9/19	Spaced Practice Works. A Learning Scientist Helped Me Understand Why.
4/9/19	What Building a Tiny Home for the Homeless Taught My Students About Teamwork
4/11/19	Students Create a Pop-Up Makerspace at a Domestic Violence Shelter
4/13/19	Students Get Food, Clothing and More From 'Care Closet' Built by Their Teacher
4/16/19	Hip-Hop Gave Me Purpose — Now It Helps My Students Find Their Voice
4/18/19	The Teacher Prep Program That Starts in High School
4/23/19	At Our Alternative School, Intervention Round Tables Support the Whole Learner
4/20/19	A 140-Year-Old School Partnered With a 10-Year-Old School. Here's What Happened.

Appendix B: Teaching and Learning Circles

	LOCATION	DATE	NUMBER OF REGISTRANTS
1	San Francisco, Calif.	8/19/18	42
2	Ardmore, Pa.	10/10/18	14
3	Durham, N.C.	10/16/18	24
4	Shreveport, La.	10/18/18	15
5	St. George, Utah	10/23/18	12
6	Albuquerque, N.M.	10/26/18	2
7	Marietta, Ga.	11/15/18	13
8	Wilton, Conn.	11/27/18	12
9	Dallas, Texas	11/29/18	23
10	Washington, D.C.	11/29/18	31
11	San Diego, Calif.	12/05/18	32
12	Princeton, N.J.	12/12/18	13
13	Decatur, Ala.	1/17/19	19
14	Denver, Colo.	1/29/19	29
15	Seattle, Wash.	1/31/19	31
16	Louisville, Ky.	2/7/19	23
17	Kansas City, Mo.	2/21/19	21
18	Baltimore, Md.	3/12/19	17
19	San Jose, Calif.	3/14/19	36
20	Milwaukee, Wis.	3/19/19	17
21	Chicago, Ill.	3/20/19	35
22	Pittsburgh, Pa.	4/03/19	23
Canceled Teaching and Learning Circles in Berkeley, Calif., Richmond, Va. and Memphis, Tenn.			25
Total			**509**

MAP OF TEACHING AND LEARNING CIRCLE LOCATIONS

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