Introduction

As the COVID-19 pandemic continued into the 2020–21 academic year, schools across California resumed instruction by educating students in their homes. School closures and transitions to distance learning that began in March 2020 have upended teaching and learning as well as relationships, structures, and supports that students depend on. At the same time, a trio of crises—not only the spread of a deadly virus, but also financial instability and racial violence and injustice—have elevated the struggles that students face; consequences from this are felt most acutely by our most vulnerable youth.

In the face of these challenges, lessons from the science of learning and development illustrate how strategic attention to supporting social, emotional, and cognitive well-being and growth can light a path forward. Supplementing these contributions, insights from practitioners and other members of the California education community can illuminate the challenges and opportunities students have experienced as they navigate schooling in the middle of a pandemic.

Taken together, themes from a June 2020 meeting of the California Collaborative on District Reform highlight what educators have long known—that attention to whole-child health and well-being is essential for success in school and beyond. Insights from science and practice underscore the threats introduced and exacerbated during the time of the pandemic. However, these insights also draw our attention to human resilience and the supports that can enable and empower students and adults to navigate the obstacles in their way. This brief emphasizes key takeaways from the science of learning and development. These lessons serve as a foundation to explore district strategies that can help students and adults thrive despite the struggles they experience during this challenging time.
Whole-Child Well-Being Is Essential to Life Success

A growing body of evidence supports what many educators have known for years—that physical and mental health and social, emotional, and cognitive development cannot be separated from learning and academic success. A healthy context for learning requires attention to young people’s safety; physical and mental health; social, emotional, and cognitive development; and academic skills, identity, and agency. However, the necessary conditions to support learning and development must be in place for young people to thrive. The context in which students live—especially during the pandemic—is not always conducive to well-being, which underscores the need for skill development in key areas. To succeed academically, students need the social, emotional, and cognitive skills and mindsets to engage productively in learning. These skills can be taught and must become an intentional focus within our education system.

An intentional focus on student development is also critical for increasing equity. Students with marginalized identities, especially Black and Latinx youth, students learning English as a second language, and LGBTQ+ students disproportionately experience conditions that can impede their development and readiness for learning. The skills and mindsets for learning, including self-regulation, executive functions, growth mindset, and more, are malleable and can be intentionally taught and developed in an educational setting. Cultivating these skills will help students engage effectively in learning, no matter the conditions that shape their initial trajectory.

Furthermore, as schools seek to prepare students for success in the 21st century economy, academic standards increasingly require higher-order skills like self-direction, curiosity, and resilience, as well as a growth mindset and sense of belonging. For example, the Common Core State Standards emphasize collaborative work (which requires social awareness and relationship skills) and critical thinking (which involves foundational skills such as self-awareness, self-efficacy, and problem solving).

The research literature underscores the interconnectedness of social, emotional, and cognitive development and academic performance. For example, studies have identified associations...
between skills such as self-control, problem-solving, cooperation, focus, creativity and positive life outcomes;\(^1\) between interventions targeted at social, emotional, and cognitive skills and students’ academic outcomes;\(^2\) between self-control and grade point average;\(^3\) and between children’s pro-social skills in kindergarten and their academic and life outcomes.\(^4\) Within California, the CORE Districts used student survey data to systematically examine outcomes related to social, emotional, and cognitive competencies for a large population of school-aged students. Emerging research has found associations in these data between self-management, growth mindset, and other developmental skills and academic achievement.\(^5\)

These vital proficiencies help young people navigate adverse circumstances like those of the COVID-19 pandemic. Attention to the conditions in which students can develop these skills is therefore a critical area of attention.

A Trio of Crises Threatens Whole-Child Well-Being

Three interrelated crises have interrupted normal approaches to teaching and learning and introduced new pressures for students and adults alike. The challenges that result from these crisis situations pose new and elevated threats that jeopardize people’s well-being and the ability of the body and brain to operate effectively.

Student Stressors During the Time of COVID-19

Crises in three domains—public health, the economy, and racial violence—have increased the stress that adults and young people across the country experience every day. These stresses have been compounded for K–12 students following widespread school closures in spring 2020 and transitions to distance learning. The effects of isolation during the closures have been damaging for a wide range of students. According to one superintendent, “It’s never been harder to be a kid, period… and then you put a pandemic on top of that and you isolate people—young people who thrive on being connected—and I think this added dramatically to the challenges that kids are dealing with.” This reality creates a COVID-19 paradox: To remain physically safe, people need to maintain physical distance from one another, which can disrupt the very kinds of human connections that we need to feel emotionally safe and manage stress.

The consequences of COVID-19 and its effects on education have been most pronounced for the most vulnerable youth in our communities, that is, students with marginalized identities who have faced significant oppression and inequitable access to high-quality healthcare, housing, job opportunities, and education. In low-income and marginalized communities, many parents are forced to work in unsafe conditions, and in some families, students need to work as well. Students often live in homes with many people, increasing their potential exposure to COVID-19 while simultaneously limiting opportunities for the quiet and solitude needed to focus on schoolwork. Moreover, students with undocumented parents and parents whose jobs do not provide healthcare must frequently navigate health challenges without insurance to cover medical needs.

Additional sources of stress grow from economic circumstances. In many families, parents are out of work due to workplace responses to the pandemic. Older students often have caretaking responsibilities for younger siblings, adding pressure and limiting time for schoolwork. Financial constraints limit students’ abilities to participate meaningfully in school. A 2020 analysis estimated, for example,
that roughly a quarter of California students lack a sufficient internet connection to meaningfully participate in distance learning. Another 17% of students do not have the devices they need for remote learning opportunities.6 School and learning are most relevant to young people when they can see its purpose in their lives and in their futures.7 The pandemic and economic inequities make it more difficult for students, especially older students, to stay engaged with school when school no longer seems like a hopeful path to a productive and fulfilling future. In spring 2020, disengagement was particularly high in low-income communities. For example, in Los Angeles Unified School District, the nation’s second-largest school system, a quarter of students did not log into their online learning portals at all during the month of May.8

Meanwhile, in the midst of the COVID-19 pandemic, the May 2020 police killing of George Floyd in Minneapolis, Minnesota, drew increased attention to longstanding frustrations and ignited worldwide protests. Subsequent police shootings of Rayshard Brooks in Atlanta, Georgia; Jacob Blake in Kenosha, Wisconsin; and others have further elevated matters of racial injustice. Young people have played prominent roles organizing and participating in protests in response. In some cases, these activities have offered opportunities for student agency for youth who took on leadership roles for activism in their communities. Nevertheless, the protests and the experiences with systemic racism that triggered them are powerful demonstrations of the injustices that Black and Latinx students and families navigate daily. These sources of stress, which can include microaggressions, teachers’ low expectations and biased perceptions of Black and Latinx students, lack of physical and emotional safety and a sense of belonging in and out of school, and poor access to high-quality healthcare, housing, and jobs compound the challenges that students face.

Adult Stressors During the Time of COVID-19

Students are not alone in experiencing additional stress over the past several months. The health, financial, and racial violence crises that impact students affect the adults in our school systems as well. At the same time, new professional demands on teachers exceed the expectations of a typical school experience. The technological and pedagogical preparation required for effective teaching in a distance learning environment can diverge widely from traditional classroom practice.

Students’ heightened social, emotional, cognitive, and behavioral needs in the current context compound the level of stress for many teachers by increasing the level of responsibility and creating a sense of empathy fatigue. According to one Collaborative member, “There’s a whole set of things that…largely got layered onto teachers in this mad rush while they’re also trying to redo their classrooms.” Another member added, “Now you have to be an expert in everything, and that’s pretty hard to do in such a short period of time…. We need to find some sort of way to let our teachers know they’re not alone and to have platforms and opportunities for them to reach out because I know their anxiety is pretty high as well.” Collectively, these pressures for teachers and for school systems mean districts and families are asking more from teachers, school staff, and administrators precisely at the time when they have least to give.

Many parents, too, are experiencing stress responses to threats from health conditions, financial constraints, and racial violence—all of which disproportionately impact Latinx, Black, and low-income families. Evidence from different parts of California suggest that domestic violence is on the rise, which impacts adults and the children living with them.9 Adding new responsibilities for
childcare and facilitating students’ distance learning compounds the challenges that parents and other caregivers face.

**Adaptability of the Brain Shapes Opportunities to Ensure Whole-Child Well-Being**

Several takeaways from the science of learning and development about humans’ reactions to crises can crystalize the challenges that exist in the present context and the opportunities for support. Perspectives from district leaders and other members of the California education community lend additional insights about how these lessons apply to navigating the COVID-19 pandemic and other challenges facing students and the adults who support them.

**The Human Brain Is Adaptable and Experience Dependent**

The science of learning and development offers many important lessons about the human body and its reactions to crises. The first lesson is malleability: The human brain is a living structure that is more adaptable to experience than any other tissue in the body. This makes the brain susceptible to both negative and positive experiences, and makes it capable of adapting and growing in positive ways under the right conditions. The brain’s growth is experience dependent. Fewer than 10 percent of the 10,000 genes in our genomes get expressed in our lifetimes. It is context—our environments, experiences, and relationships—that determine which genes get expressed, and therefore who we are and who we become. Given these factors, context is critical in shaping how the brain develops and operates. There is no separation between nature and nurture; our lives are not predetermined by a genetic program. Adults have an important role in shaping the context—the environments, experiences, and relationships—in all settings in which students grow and learn.

**Stress Can Negatively Affect Human Responses to Crisis**

Negative experiences in the form of stress—including the stresses induced by the trio of crises outlined earlier—play a critical role in how children’s brains develop and learn. Stress produces cortisol, which is adaptive at mild or tolerable levels. That is, cortisol can enable focus and sharpen performance in certain circumstances—like a test or a performance. Persistently high cortisol levels, however, that are not buffered by the presence of a calm and caring adult, can produce a condition in which the stress does not let up. This condition is called toxic stress, which locks children into a fight-or-flight response in their environments. Children struggle to focus and concentrate and have difficulty trusting others and controlling emotions and behavior. Therefore, adversity does not just happen to children; it happens inside their brains and bodies through the biologic mechanism of stress.

**Positive Relationships and Key Competencies Help Humans to Navigate Stress**

Just as the science of learning and development highlights how stress can negatively affect the ways in which students and adults respond to crisis, it also underscores our capacity for resilience. It is important to note the ways in which educators and school systems can support students in developing the skills and mindsets, including resilience, that help students discover and use their strengths in the face of stress and adversity.
Another hormone, oxytocin, plays an equally critical role in the body’s response to stress. Oxytocin hits the same structures in the brain as cortisol and can literally protect children from the damaging effects of cortisol at a cellular level. Strong, positive, consistent, and trusting relationships cause the release of oxytocin within the brain. In this way, relationships protect students from the damaging effects of stress, help them engage productively in learning, and promote resilience.11

Scientific insights into the body’s stress response provide a roadmap for how to design schools, classrooms, and practices that enable young people to manage stress and adapt in positive ways to the challenges we and they are facing. The malleability of our brains and our bodies is what makes this possible. We know that the brain develops in response to experiences, both positive and negative. We know that emotions engage our cognitive learning skills, and that students learn best in environments that foster feelings of safety and belonging. We know that cognitive, social, and emotional skills and competencies can be intentionally developed and will help students

**The Marshmallow Test Revisited**

Research exploring self-control in children has illustrated the ways in which young people’s ability to apply productive life behaviors is context dependent.

A famous study of young children first conducted in the 1970s—often called the “marshmallow experiment”—presented children with a choice of eating a single marshmallow immediately or waiting 15 minutes and receiving a second marshmallow. The initial study found correlations between children who were able to exert self-control—delaying gratification—and key learning and life outcomes.a

In 2012, another research team recreated the study under different conditions: Prior to participating in the marshmallow test, children received a box of broken crayons and a promise that a researcher would return with a new box. For half of the children, the study representative brought new crayons as promised; the research team called this the “reliable” condition. For the other half, the “unreliable” condition, the researcher returned to apologize that they were not able to provide new crayons after all. Then, the researcher repeated the marshmallow test. The group for whom the promise was kept had no trouble waiting for the second marshmallow. In contrast, the group for whom the promise was broken gobbled up the first marshmallow in almost every instance.b

The ability to delay gratification and exert self-control, it turns out, has much to do with whether a child trusts the person providing them with a marshmallow. In other words, this updated research demonstrated that the malleable skill of self-control was not just in the child, it was in the child in an environment that was designed to reveal this skill—through the experience of a trustful relationship. The connection between context and the development of skills and talents has enormous implications for how we design environments to nurture learning and development.

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succeed in school and beyond. All of this means that we can intentionally design environments in our classrooms, schools, and homes to help children cope with stress, build resilience, engage in learning, and develop the interests, passions, mindsets, and skills necessary to flourish.

The New Three Rs Can Help to Support Whole-Child Well-Being

To focus support for whole-child well-being and learning, school districts and other youth-serving organizations can turn their attention to what Turnaround for Children calls “The New Three Rs”: relationships, routines, and resilience.¹²

Relationships

Relationships build a sense of stability, belonging, and trust that enable students to engage in learning and at the same time manage and overcome stress. Attention to relationships is therefore a vital component of successful transitions back to school. “In a time when things are fractured,” one superintendent observed, “you have to double down on building these kinds of relationships.” Another Collaborative member added, “The relationship piece is at the heart of engaging our students and building trust.”

Nevertheless, establishing relationships with students in the absence of in-person contact in fall 2020 presents daunting challenges. According to one superintendent, “Our teachers had relationships with their students when we shut down on March 13, and we still had challenges connecting with students. So what does it look like when you’re starting a school year and that relationship isn’t there?” Another superintendent voiced a similar concern by saying, “The challenge is going to be the teachers getting to know the kids, because coming back with physical distancing,

facial coverings…and not being able to see their [students] every day…. That’s one of the concerns our teachers have.”

Educators and students are finding innovative solutions to build new relationships and strengthen existing ones. For example, teachers are using virtual advisories to maintain connections with students, creating video greetings for students, and staying in touch through emails and phone calls. Some students have created their own classroom “phone trees” to ensure that their entire class is connected and has the information they need to be successful. Communications between students and between students and adults pay big dividends in attendance and engagement.

Routines

Routines help to establish order and calm, thereby enabling the brain to focus, concentrate, and function at optimal levels. Routines are especially important during the 2020–21 school year, where great uncertainty remains and learning formats may change rapidly with the ebb and flow of COVID-19 spread. From a system level, consistency across classrooms and schools—from common learning platforms to expectations around pedagogy or student participation—can help to promote emotional well-being by creating common experiences for students. This alignment requires extensive collaboration and communication to achieve.

At school and classroom levels, routines for opening the day, for opening a class session, or for school
Resilience
drop-off are possible areas for attention. Encouraging students to develop these plans and norms in partnership with adults will support adults’ efforts and enable students to take ownership and express their leadership.

Resilience equips students to navigate the challenges that emerge from the COVID-19 context and the other obstacles present in their school and home experiences. Building resilience is likely the most important task we have for ourselves and our students today. Growing resilience always begins by recognizing students’ strengths; pointing them out to students; and using coaching, mentoring, and co-regulation to build on strengths. Extensive research on resilience has described it as a malleable skill that can be built and that can grow. Just as educators seek to recognize a student’s zone of proximal development in supporting academic growth, they can do the same in supporting the growth of resilience. Educators can emphasize strengths that students already have and providing encouragement and support for students to reach the next step or goal. They can also help students to recognize and overcome mistakes through safe and supportive coaching and feedback. This kind of guidance and encouragement can help students develop and grow their resilience.

The New Three Rs Also Apply to Adult Needs

Attention to the New Three Rs among teachers, administrators, and parents can help adult members of our school communities thrive in this time of crisis. For example, starting adult meetings with personal check-ins can be part of a routine to encourage individuals in those meetings to build relationships with one another. As one Collaborative member observed, “We are more likely to help the adults in service to kids form relationships if we’re also making sure that we’re checking in on [those adults] as human beings and making sure that they’re okay too.” Just like an airline pilot directs passengers to put on their own oxygen mask before helping others, adults must prioritize their health and well-being before they can promote the health and well-being of their students.

Emerging District Practices Suggest Possible Paths Forward

The COVID-19 pandemic has forced districts to respond rapidly to new constraints in the way they serve students and families. These conditions have prompted the adaptation of existing approaches to new circumstances and have opened the door for innovation. Several emerging practices in California districts may help school systems build relationships and establish routines that will foster resilience among all members of our school communities in this moment and beyond.

Listen to Students, Teachers, and Families

In responding to student, educator, and family needs, district leaders must first understand what those needs are. Surveys are one strategy employed by many districts over the past several months to collect student perspectives on a broad scale. Collecting feedback can also be an opportunity to build human connections. Mentoring relationships between adult leaders and students, for example, give district leaders a more personal window into student experiences while also creating a support structure for students. Collecting input and feedback through multiple channels can also create opportunities to build trust, provided that district leaders are open and actively responsive to the feedback they receive when they turn to students for their opinions. As one Collaborative member

explained, “We have to be willing to listen and hear the hard things that [students] may have to say to us. It is there that you begin to build relationships.”

In their efforts to understand others’ perspectives and experiences, district personnel should be careful that their outreach efforts do not merely amplify the voices of those who are already most empowered. As one superintendent reflected, “The folks that are filling my email box…are the people that the system worked for. Why wouldn’t we take this opportunity to break down systems and practices that didn’t allow each of our kids to be successful?”

Communicate Regularly

Effective relationships thrive on productive two-way communication. Districts seeking to create the conditions for students and adults to thrive should look for ways not only to solicit input but also to regularly and proactively reach out and provide updates to all members of the school community. Underscoring the importance of communication in times of crisis, one superintendent noted, “Information is like oxygen. Without it, people hallucinate.” Indeed, many members of the California education community have observed that one of the more positive outcomes of spring 2020 school closures was increased frequency and quality of communication in many districts. It can take the form of videos, newsletters, and phone calls, and can provide easy access to answers for community members with questions. A concierge program in one district, for example, gives families a resource to call, talk to a human being, and be connected directly to the services they need. By regularly providing targeted updates and access to information, district leaders can promote engagement, relieve anxiety, and build more productive organizations.

Provide Tools and Resources to Teachers and Other Educators

The burden of providing additional support to students may seem overwhelming to teachers and other educators already trying to manage myriad pressures in their own personal and professional lives. By equipping adults with tools to help support students, districts can make outreach and support for students a manageable task. For example, Turnaround for Children developed a set of resources to help promote relationships, routines, and resilience. These resources were designed for accessibility and use. Simple strategies like “banking time,” where educators schedule 10–15 minutes with individual students one to three times a week, can make a big difference. During this sacred time for informal connection and support, a teacher listens to the student and validates their feelings and emotions. This interaction helps students build trust and confidence, and helps to regulate their emotions and behavior. A routines planner is another tool that students can use to manage their time, even when learning at home. Other organizations offer useful resources that can help build capacity and minimize burden for teachers. A set of webinars from The Partnership for Los Angeles Schools, for example, give teachers language to talk with their students about racial justice. By curating, sharing, and promoting the use of these resources, districts can leverage the good work already underway and equip educators to better meet students’ needs.

Use Noninstructional Staff Creatively

For all the steps that districts can and should take to better serve students and adults, the reality is that
they are confronting increased demands—especially on teachers—with limited system capacity. Seeing opportunities through the lens of in-person schooling, where each student’s strongest affiliations are with a specific school site and their classroom teacher(s), may limit the options at a district’s disposal. To navigate this challenge, district leaders might think more expansively about who can meet the range of responsibilities traditionally required of instructional staff. As one superintendent reflected, “What I’ve learned through this process is that we have to take advantage of every person who’s willing to help.” A range of school personnel, from classroom teachers to principals to instructional aides to counselors to afterschool leaders, might play important roles in forging connections and ensuring quality learning experiences for students while making the workload manageable for each adult. Parents have begun to play more active roles in supporting their children’s learning from home—which could be an unanticipated benefit of this difficult period. Although the pressures on parents are substantial, they too are an important and vital resource to student learning and development. Coordination with adults inside and outside the school environment is key to bringing everyone together to create safe and supportive environments for youth.

Leverage Partnerships

Schools cannot do this alone. The community is a source of support to schools. Districts should actively seek partnerships with youth development, mental health, and parent organizations for support with instruction, mentoring, and childcare and to create conditions for high-quality teaching and learning. Youth organizations, afterschool programs, community colleges, and teacher preparation programs are examples of possible partners for districts moving forward.

In this way, school districts can look beyond the K–12 system for support. Even before the COVID-19 pandemic, California had some of the nation’s lowest numbers of nurses, counselors, teachers, and administrators, as well as access to physical and mental health services. As the demands for these roles are increasing without any concomitant influx of resources, school systems may be ill-equipped to address student needs. As one Collaborative member reflected, “The bandwidth of the school doesn’t match up with a whole child [approach], and just educators talking to each other isn’t going to get us to that vision.” These resource constraints call for an expansion of the perimeter of support and partnership to include county agencies, YMCAs, boys & girls clubs, and other community partners that provide important resources and supports, all of which enable teachers to focus on relationship-building and academic learning. It is time for an “all hands on deck” approach to the needs of schools, adults, and our young people.

Reach Students in New Ways

The constraints of physical space and master schedules have historically limited educators’ opportunities to connect with students, build relationships, and address challenges. Although distance learning inhibits personal connections, it opens doors to new options. Virtual one-on-one or small-group interactions can be platforms to provide social and emotional supports to students and parents. The creative deployment of staff, like counselors and bilingual employees, can enable...
adult–student connections through direct outreach. Such deployment can happen virtually or can occur through home visits when in-school connections are not possible, especially for students who have not engaged in virtual learning. These approaches to establishing personal ties can then serve as the basis for fostering productive relationships and learning environments when in-person learning resumes.

Conclusion

A trio of crises during the time of the COVID-19 pandemic has introduced new levels of stress at the same time as it has forced district leaders, school administrators, teachers, students, and families to rapidly change the way they approach teaching and learning. We must confront the reality that a healthy context for learning combines a focus on academic learning with attention to young people’s physical and mental health and an intentional focus on social, emotional, and cognitive development.

There is no choice between academic learning and intentional student development. They are inextricable, and one will not happen without the other. Increasing numbers of educators, policymakers, and parents are recognizing the need for integrated, whole-child approaches to learning and development at a time when the capacities to do this are significantly constrained. Despite the challenges that all members of our school communities face, we must anchor in the knowledge that the science of learning and development tells an optimistic story about what is possible because of the malleability of the human brain and our ability to overcome adversity. As the 2020–21 school year continues, districts can position students for academic success by prioritizing physical and emotional well-being; social, emotional, and cognitive development; and academic supports and strategies, all combined in a web of consistent and caring relationships.

As you reflect on the recommendations shared here, think about someone who has surmounted adversity and gone on to do amazing things. These stories have a consistent ingredient. The person facing and surmounting adversity always had a supportive individual who never gave up on them, who had their back, who expressed belief in them, and who loaned some courage at a critical moment. That all these stories have a consistent ingredient is not an accident.

Each of us carries this power today—to be that consistent person and relationship for a young person and for each other during this challenging time.

ENDNOTES


The California Collaborative on District Reform, an initiative of the American Institutes for Research, was formed in 2006 to join researchers, practitioners, policymakers, and funders in ongoing, evidence-based dialogue to improve instruction and student learning for all students in California's urban school systems.

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For more information about the Collaborative and its work, visit www.cacollaborative.org.

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