The science of learning and development presents many powerful lessons that can transform education systems, advance equity, and help every young person thrive. These lessons (described in the sidebar) should inform decisions about how to navigate the ongoing COVID pandemic, including the budgetary constraints that our education and other youth-serving systems will face as a result.

The COVID crisis has laid bare many of the inadequacies and inequities in our education systems, which were built for the industrial age and designed to ration, segregate, and reward a privileged few rather than to help all young people thrive. Those hardest hit are, once again, young people of color, young people facing economic disadvantage, young people with disabilities, and youth from other marginalized groups. This coincides with a renewed and critical national focus on racial justice that should motivate and inform action at every level. As we move through this crisis, we must intentionally disrupt the structures and policies that hold racism and privilege in place and advance fundamental changes in our education systems both to meet immediate needs and to build back better for the long term. The question is: how?

The SoLD Alliance is a growing network of researchers, practitioners and policymakers who are working together because they see that the science of learning and development holds powerful, positive, unifying lessons for how we can transform our education and other youth-serving systems to dramatically improve opportunity and outcomes for all children and youth, particularly for those young people least well-served by the current systems.

**The Science of Learning and Development: Lessons for Education Leaders**

1. All young people have huge potential and their brains are malleable and their spirits resilient throughout their lives. We know, therefore, that each and every young person is highly capable of achieving their full potential with the right conditions and supports, despite the current crisis.

2. Young people’s context is by far the most important variable in determining their trajectory in learning and life because context drives the expression of our genes. This context includes relationships, environments and experiences. The current crisis has instantly and dramatically altered all of these, but we can build back better.

3. Each young person is as unique as the intersection of their genetic makeup and their lived experiences. Each young person will be affected by the current crisis differently, and each will learn, develop, and progress in their own ways with their own areas of need, interest, and ability. We must understand and support each individual young person in their unique context — to provide the supports, opportunities, pathways, and agency they need to meet them where they are and maximize their growth.

4. Learning and development happen in integrated ways — socially, emotionally, cognitively, academically, and physically. These are inherently linked and inseparable. Each child learns by making meaning — connecting their prior knowledge and experience to new content and skills to formulate new mental models and understandings. As we move forward, we must focus on the whole child and foster rich learning experiences that are culturally relevant and rigorous.
Below are six priority actions that emanate from science of learning and development and can guide education leaders through the COVID crisis to help them build more equitable, effective education systems for the long term. In the weeks and months ahead, the SoLD Alliance will continue to highlight research-based resources and concrete ideas in each of the areas below.

**Six Priority Actions from the Science of Learning and Development to Meet the COVID Moment and Build Back**

As education and youth-serving leaders address the current crisis and plan for the next school year and beyond, we encourage them to hold a core question in mind: How can I use the knowledge from the science of learning and development to design more equitable, better systems and supports for young people to learn and thrive?

Answering this question requires rejecting binary, “either/or” thinking and instead adopting a “both-and” mindset. For example: we must attend to both social-emotional and academic learning and development; we must advance learning both in and out of school; we must address the current crisis and build better systems for the long-term. To do these things, education and youth-serving leaders should consider on an ongoing basis whether their decisions address the priority actions below and can ensure systems serve all young people equitably:

1. **Build, strengthen, and maintain positive developmental relationships** — Strong, healthy relationships are the single greatest resource for supporting readiness to learn, resiliency, and mental and emotional well-being. COVID has greatly interrupted many of these relationships for all students. As we enter the 2020-2021 school year — including remotely and in-person — we must build structures, opportunities, and expectations to prioritize the relationships that young people have with their teachers, other important adults (e.g., coaches or school staff), and peers.

2. **Design healthy environments that ensure safety and belonging** — Young people must feel physically, emotionally, and identity safe in order to engage in learning and take risks. They must feel that they are being valued by those around them. They must see their culture and histories represented positively in their schools and classrooms. In particular, racism and injustice can manifest in discipline practices, deny opportunities to learn and lead and convey prejudiced messages about worth and identity. These can be sources of ongoing trauma and barriers to learning and development for young people. System leaders must collectively recognize racialized injustice and allow for racial healing and authentic belonging for all members of the community. COVID has dramatically limited the physical environments that young people can access and required a shift to virtual environments that are completely new to some young people. Even within these virtual environments, it is important to show young people that you respect, value, and build on their culture, identities, personal assets, and experiences, while working to reduce implicit and explicit bias. Leaders must design and innovate to protect civil rights and anti-racist policies and practices.

3. **Create rich, relevant, and developmentally-appropriate learning experiences** — While schools and other learning settings are physically closed, young people’s learning and development continues. In order to build their academic mastery, critical thinking, and problem solving skills, as well
as their sense of motivation and agency, young people require instructional experiences that are productive, rich, relevant, and developmentally appropriate. System leaders should leverage resources, young people’s own experience, interests, and knowledge, and the expertise of educators and other adults in young people’s lives, to prioritize engaging, culturally-relevant and project-based instruction and ensure access to broadband and devices so that all students benefit equitably during and beyond this crisis. Doing so will also help mitigate any instructional loss caused by the pandemic as well.

4. Intentionally develop critical knowledge, skills, mindsets and habits — All instructional experiences should attend to the intertwined social, emotional, and academic aspects of learning. Building young people’s social, emotional, and cognitive skills is key to enabling academic learning and to building the agency, resilience, and problem-solving abilities young people will need to master academic and personal challenges and to thrive. It is important to prioritize actions that enable education systems, schools, and adults in any learning setting to stop making trade-offs between academics and the development of critical social, emotional, cognitive, and metacognitive skills and mindsets.

5. **Personalize learning experiences and build and empower student agency** — The science makes clear that each young person has their own individual needs, interests, and abilities. Supporting young people to learn and develop effectively requires collaboratively enabling unique pathways for each student. Educators and other youth-serving adults should use both quantitative and qualitative student data — including measures of the learning setting — as essential resources to understand how young people are experiencing the impacts of the COVID crisis. This information will be invaluable in informing strong, personalized, and timely instructional and other supports in order to ensure continuity of positive learning and development. Particularly in a time of distance learning, tapping into and supporting each young person’s agency to drive their own learning in new ways will be critical.

6. **Design integrated systems of supports with the whole child at the center to meet student needs and expand learning opportunities** — Successfully attending to the complex learning and developmental needs of individual young people requires many diverse systems (e.g. education, healthcare, mental health, housing, juvenile justice, child welfare, early childhood, etc.) to coordinate services and resources across many different beneficiaries, professionals, institutions, and communities. During the COVID pandemic and beyond, schools and other youth-serving systems and organizations need to integrate and innovate to ensure every individual young person — the whole child — gets the support and expanded learning opportunities they need. The need for integration has been known for a long time, but the current crisis and its many disruptions also present opportunities to integrate learning experiences and supports in ways that enable our young people to surmount challenges and thrive.