

High-Quality Curriculum

Deeper Learning

To successfully navigate the global and technologically mediated world in which we now live, young people need to be prepared to engage intellectually, in addition to developing interpersonal and technical skills. They need deeper learning competencies, which The Hewlett Foundation outlines as:

mastering core academic content,

thinking critically and solving complex problems,

communicating effectively,

working collaboratively,

learning how to learn, and

developing academic mindsets.

In the United States, the inquiry-based "thinking curriculum" that supports deeper learning has been rationed to relatively few students and made especially inaccessible to students of color, who are often segregated in schools and tracks that offer a lower-level curriculum and are underrepresented in Gifted and Talented programs and advanced courses in which deeper learning practices are more likely to be found. And with accountability systems organized around low-level, multiple-choice tests that strongly influence curriculum, far fewer U.S. students ever encounter the kinds of deeper learning opportunities students in high-achieving countries typically experience.

Access to a deeper learning curriculum should begin with access to quality preschool when children are developing their initial brain architectures as they explore, inquire, communicate, and play. High-quality preschool teaching cultivates these deeper learning abilities, along with social-emotional skills, so that they transfer into approaches to learning in later schooling and life, securing substantial academic and life benefits. However, fewer than half of children from low-income families have access to this kind of early learning experience, and even fewer have access to a deeper learning curriculum when they reach school age.

Building on these early experiences, research has found that elementary and secondary schools that successfully support deeper learning for students of color and those from low-income communities engage in a number of common practices, including authentic instruction and assessment (e.g., project-based and collaborative learning, performance-based assessment, and connections to relevant topics related to student identities and the world beyond school); personalized supports (e.g., advisory systems, differentiated instruction, and social and emotional learning and skill building); and ongoing educator learning through collaboration, shared leadership, and regular professional development.

Authentic Assessment

The American Institutes for Research found that across a set of 13 deeper learning–focused schools, students achieved higher scores on the Program for International Student Assessment (PISA) test and were more likely to graduate high school in 4 years, to enroll in 4-year colleges, and to attend more selective colleges. Importantly, the accomplishments were achieved regardless of whether participating students entered high school with low or high levels of prior achievement.

The study documented that in settings where students succeed, they engage in mastery learning experiences through which they:

* explore meaningful questions,
* conduct inquiries together,
* present and vet their answers to one another, and
* continue to revise their findings and products until they deeply understand the concepts.

By revising their work, students learn that they can become competent by applying purposeful effort, and they develop cognitive strategies that they can transfer to future work. As students take agency in the learning process, they come to understand both how they learn and what they care about. They develop a growth mindset and the motivation to continue to identify questions and pursue deeper learning about matters they care about, including pathways to college and careers.

The following example of Life Academy, one of more than 600 Linked Learning Academies in California, illustrates how rigorous academics can be combined with career-based learning and real-world workplace experiences in ways that eliminate the often raced and classed divide between academic and vocational tracks. All students are prepared for both college and careers. The schools are connected to industry partners and have relationships with organizations that provide internships and other learning opportunities to students, while also participating in the evaluation of authentic student work.



Linked Learning in Action

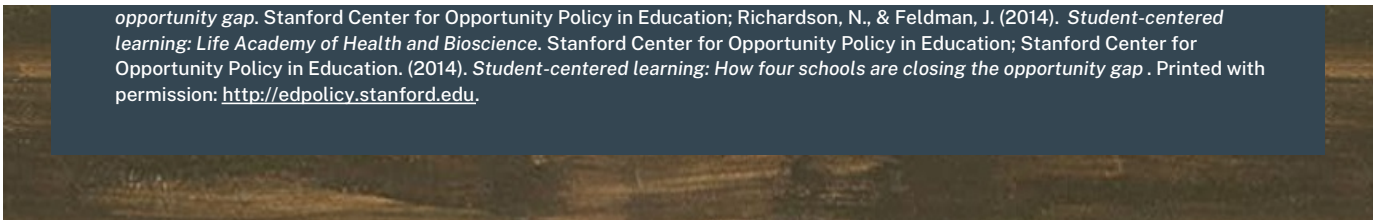
Life Academy of Health and Bioscience is a small public high school in Oakland Unified School District that prepares its students to become future professionals within the biological sciences. The school offers all students college and career preparation coursework through inquiry-based pedagogy, health and science career internships, a 4-year advisory program, multiple performance-based exhibitions that include an interdisciplinary senior exhibition, and a wide array of "post-session" classes driven by students' interests at the end of the year.

Opened in 2001, Life Academy was designed based on research about effective, small learning communities. Explicitly focused on disrupting patterns of inequality that affect its students, the school serves students from diverse backgrounds. Ninety-nine percent of its families qualify for free or reduced-price lunch, 30% are English learners, and about half of students' parents did not complete high school.

All students select one of the school's three career pathways — medicine, health, or biotechnology — and take college preparatory courses and complete an internship aligned with that pathway. To support these internships, the school has developed relationships with partners, including several local hospitals. Hallmark instructional elements of the school include an emphasis on cross-disciplinary projects and public demonstration of mastery. The culminating work for students is the senior research paper, a yearlong and multistage assignment. Each student researches a question that emerges out of an internship experience. To answer the question, each student conducts a literature review, interviews an expert, writes a paper, and presents and defends findings to a panel that includes faculty, students, and family or community members.

The school had a 100% graduation rate in 2020–21 and has had the highest acceptance rate into the state university system of any high school in Oakland, with students going to schools like the University of California, Berkeley and the University of California, Los Angeles as well as Stanford and Smith College. When asked what high school experiences have contributed to their college readiness, more than 90% of Life Academy students list relationships with teachers and advisors, workplace internships, and aspects of the way they are encouraged to work on their projects and demonstrate mastery, such as "explaining my thinking," "testing or trying out my ideas to see if they worked," "evaluating myself on my class work," "participating in peer review of work," and "having to revise my work until it meets standards of proficiency." These practices are part of a performance-based, mastery-oriented, relationship-supported approach to learning that can create success for all students.

Sources: Darling-Hammond, L., Friedlaender, D., & Snyder, J. (2014). *Student-centered schools: Policy supports for closing the*



opportunity gap. Stanford Center for Opportunity Policy in Education; Richardson, N., & Feldman, J. (2014). *Student-centered learning: Life Academy of Health and Bioscience*. Stanford Center for Opportunity Policy in Education; Stanford Center for Opportunity Policy in Education. (2014). *Student-centered learning: How four schools are closing the opportunity gap* . Printed with permission: http://edpolicy.stanford.edu.