

The Aims of a Stanford Education

Stanford's founding grant states the university's "object" succinctly: "to qualify its students for personal success, and direct usefulness in life." Today, more than a century later, we still subscribe to that goal. But we also hope for more. We want our students not simply to succeed but to flourish; we want them to live not only usefully but also creatively, responsibly, and reflectively.

No education, however well conceived and comprehensive, can ensure these outcomes. But there are (to quote our committee's charge) certain things that we "want our students to gain during their time on the Farm," things they will need to make their way in the world awaiting them. The committee's first task was to try to identify those essential elements, to establish what we want our students to learn in order to think more clearly about what, and how, we should teach them.

Mindful of the inadequacy of any short answer to such a vast question, we offer four broad elements that we believe represent the goals of a Stanford education.

Owning Knowledge

Anyone who has spent time at universities knows that discussions of undergraduate education frequently come to focus—and often to founder—on the question of curricular content. What are the specific texts or bodies of knowledge that every student—every educated individual—simply "needs to know"? Once the issue is posed in that way, the stage is set for an academic brawl, as those who lived through Stanford's Western Culture debate in the late 1980s will recall.

Much has changed since that debate. The SUES committee found few people on campus prepared to assert the existence of a single, definitive corpus of knowledge that

every student was obliged to know, much less to specify what such a corpus might include. This diffidence does not mean, however, that we no longer believe that our students need to know things. Universities exist to produce and disseminate knowledge; students attend universities to share in that knowledge and, if they are fortunate, to become directly involved in the creation of new knowledge.

It is customary at Stanford, as elsewhere, to think of knowledge in two dimensions: depth, which students are presumed to acquire in their majors, and breadth, which is the province of "general education." Given the nature of its charge, the SUES committee was primarily concerned with the latter—with ensuring that every Stanford student receives not only specialized instruction within a major but also substantial introductions to the characteristic modes of thought of a broad range of disciplines and fields, including the natural and physical sciences, history and the social sciences, mathematics, engineering, the interpretive and analytical humanities, languages, and the arts. We believe that the recommendations we offer in this report serve that goal. Yet we have also come to believe that the conventional distinction between majors and general education—a distinction deeply entrenched in the culture of Stanford, among students and faculty alike—is itself misconceived. Properly understood, specialized and general education are not separate enterprises but elements of a single, reciprocal process, each providing dimension to the other. It is through that reciprocal process that students begin to understand the stakes not merely of studying physics or philosophy but of understanding and engaging the world as physicists or philosophers do. They become fully vested in the knowledge they have gathered, which ceases to be something external and becomes a part of who they are. This is one of the essential aims of a Stanford education.

Honing Skills and Capacities

In the aftermath of the curricular wars of the 1980s, it became the custom at many schools, including Stanford, to define the goals of general education in terms not of content but of capacities. If we could not specify what texts our students were required to read, we could at least specify the skills they needed to possess. In practice, enumerating essential skills proves only slightly less fraught than identifying essential knowledge, with any list susceptible to charges of arbitrariness and omission. Nevertheless, there are certain things that we believe all Stanford students should be able to do by the time they graduate.

First and foremost, they need to be able to communicate effectively, and to do so in a wide variety of circumstances, venues, and media. This obviously means writing clearly, but it also includes reading closely and critically. Similarly, it includes clear and effective oral communication, as well the ability to listen and genuinely to hear others, even when their ideas and arguments challenge strongly held opinions and beliefs. In a world rife with misunderstanding and riven by all manner of political and sectarian disputes, nothing is more important to responsible citizenship than the capacity to communicate.

We hope our students will also acquire other capacities during their years at Stanford: critical thinking; aesthetic and interpretive judgment; formal and quantitative reasoning skills; an ability to think historically; facility in both scientific and social scientific analysis, including the abilities to formulate and test hypotheses, assess data, and weigh competing theories; and, last but not least, a rich capacity for creative expression, in whatever domain or field. Most Stanford students enter the university with some semblance of most, if not all, of these abilities, but they need additional opportunities to practice and hone them in different settings and contexts.

As even this schematic description makes clear, there is no tidy line between knowledge and skills. The knowledge that students acquire in their studies becomes the platform on which they hone intellectual capacities; these capacities, in turn, become vehicles for the acquisition of new knowledge. If the student is well educated, the process becomes self-sustaining, setting the stage for lifelong learning. This too is an essential aim of a Stanford education.

Cultivating Personal and Social Responsibility

Students equipped with knowledge and a broad array of capacities and skills are well on their way to lives of “personal success” and “direct usefulness.” Yet if the history of the modern world teaches us anything, it is that knowledgeable and skillful people are capable of doing great harm as well as great good.

This points to the third essential aim of a Stanford education. If our graduates are to assume the responsibilities of local, national, and global citizenship, they need not only deep knowledge and well-honed skills but also a wider set of characteristics and competencies: a sense of personal and social responsibility; ethical and moral reasoning skills; an appreciation of cultural difference, as well as of human commonality; the ability to work collaboratively in diverse teams; tolerance, generosity, and a broad capacity for empathy. Some universities seek to instill such qualities by imposing a stand-alone “service” requirement. We are thinking much more broadly, imagining a Stanford that consciously fosters connections between the education that students receive in the classroom and the world in which they live, that affords students not only abundant opportunities for civic engagement, intercultural communication, and ethical decision making, but also settings in which to process and reflect upon those experiences. To paraphrase David Starr Jordan, Stanford’s first president, our goal is to produce students who possess not only the knowledge and skills they need to accomplish things, but also the wisdom to recognize what needs doing.

Adaptive Learning

Howard Swearer, a former president of Brown University, once described liberal education as “preparation for appointments not yet made.” This insight is more pertinent today than ever. Given the ever-accelerating pace of change in the world, there is simply no way to anticipate all of the challenges and perplexities that our students will face in the course of their lives. Just consider what we have seen in the eighteen years since the CUE filed its report: the attacks of 9/11 and the ensuing “War on Terror”; decade-long wars in Iraq and Afghanistan; mounting evidence of global climate change; a series of rapid economic booms and busts, leaving a legacy of chronic joblessness, widening

inequality, and global fiscal crisis; the collapse of comity in our political system; a continuing digital revolution that has transformed not only the ways in which we access, produce, and transmit information, but also the very nature of individual and communal identity. All of these changes and the questions they pose were beyond the imagining of the CUE. Doubtless authors of the next review of Stanford undergraduate education will say the same about us.

This observation has important implications for how we think about undergraduate education. As much as we might wish it, there is simply no way we can pack into our students' heads everything they will need in the years ahead. Many of the specific things we teach them, in fact, will quickly fall out of date. If our students are truly to flourish they need one final element, which we call adaptive learning. Just as the measure of a human brain is not its number of neurons but rather the density of interconnections between them, so is the long-term value of an education to be found not merely in the accumulation of knowledge or skills but in the capacity to forge fresh connections between them, to integrate different elements from one's education and experience and bring them to bear on new challenges and problems. We on the SUES committee believe that adaptive learning is the fourth essential aim of a Stanford education, and the one that in some ways encompasses the rest. It is

this capacity to integrate new and old experience, to adapt knowledge and skills to novel circumstances, that protects our students from professional obsolescence and prepares them to face the unpredictable challenges awaiting them.

Scholars researching the nature of creativity have long recognized the importance of adaptive and integrative learning, and most of the rest of us understand it intuitively: who among us cannot recall such a moment of illumination, when elements from different books, courses, or corners of our lives came together to produce new insight? A number of programs at Stanford have already woven such learning into the fabric of their curricula. Yet we were struck by how little attention most departments and programs have given to cultivating this essential capacity. We were also surprised, and somewhat chagrined, to discover how infrequently some of our students exercise it. For all their extraordinary energy and range, many of the students we encountered lead curiously compartmentalized lives, with little integration between the different spheres of their experience. If there is a single motivating principle that ties together the various recommendations that follow, it is our determination to breach the silos of students' lives, to offer them an education that is more than the sum of its parts, an education equal to the unfathomable challenges and opportunities that await them.