

Knowledge for
SOCIAL CHANGE

*Bacon, Dewey, and the Revolutionary
Transformation of Research Universities in
the Twenty-First Century*



TEMPLE UNIVERSITY PRESS
Philadelphia • Rome • Tokyo

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Benjamin Franklin's Revolutionary Theory of Education

Nothing is of more importance to the public weal, than to form and train up youth in wisdom and virtue. Wise and good men are, in my opinion the *strength* of a state: much more so than riches or arms, which, under the management of Ignorance and Wickedness, often draw on destruction, instead of providing for the safety of a people.

—BENJAMIN FRANKLIN TO SAMUEL JOHNSON
(23 August 1750)

To suggest that it [the College of Philadelphia, which subsequently became the University of Pennsylvania] anticipated the most enlightened program evolved by the liberal university of the late nineteenth century is to speak with caution; in fact, it stands out like a beacon light in the long history of human intelligence.

—CHARLES AND MARY BEARD,
The Rise of American Civilization (1930)

Benjamin Franklin viewed Francis Bacon as one of the great figures in world intellectual history. In 1749 Franklin published in *Poor Richard's Almanack* an article that commemorated the death in 1626 of "Sir Francis Bacon, *great* in his prodigious genius, parts, and learning." Noting that Bacon is "justly esteem'd the father of the modern experimental philosophy,"¹ Franklin then quoted this poetic tribute to the "great deliverer" who denounced "jargon-teaching schools" and who powerfully inspired Franklin's own orientation to the advancement of learning and knowledge:

*Him for the studious shade
Kind nature form'd, deep, comprehensive, clear,
Exact, and elegant; in one rich soul,
PLATO, the STAGYRITE, and TULLY join'd,
The great deliverer he! Who from the gloom*

*Of cloister'd monks, and jargon-teaching schools,
 Led forth the true Philosophy, there long
 Held in the magic chain of words and forms,
 And definitions void: He led her forth,
 Daughter of Heav'n! that slow ascending still,
 Investigating sure the chain of things,
 With radiant finger points to Heav'n again.²*

An ardent Baconian, contemptuous from an early age of scholasticism and existing institutions of higher education, passionately devoted to the "modern experimental philosophy," Franklin continuously acted on this fundamental, far-reaching Baconian proposition: creative, effective organization is mandatory if knowledge is to function as power for good and help morally inspired, scientifically oriented individuals develop and implement practical solutions to strategic problems affecting human well-being. As one Franklin biographer admiringly observes: "No man in his day better understood, or more often and successfully practiced, the techniques of cooperative action than Franklin. He applied principles of mechanics to benevolence. By uniting many small private energies into a voluntary joint stock association, he created engines with power for infinite good in the American community."³ That insight can appropriately be stated in more general terms: To satisfy his lifelong categorical imperative to "do good," Franklin became a master real-world problem solver—in our terms, a "master scientist of management." A remarkably creative organizational theorist, he developed and demonstrated an unusual capacity to systematically integrate theory and practice by searching for, and implementing, pragmatic means to realize socially significant human ends. Knowledge functions as wisdom and power to do good, he believed, only when human beings develop and use it to engage in action-oriented, collaborative, real-world problem solving designed to satisfy strategic human needs.

Inspired and informed by Bacon's emphasis on the importance of organized cooperative action to advance knowledge and do good for human beings, Franklin also adhered to Bacon's "admonition" that knowledge should not be pursued for private gain. On the contrary, he too was passionately convinced that it must be charitably motivated and pursued "for the benefit and use of life," as Bacon wrote in the preface to *The Great Instauration*.⁴ Franklin refused to profit from any of his numerous inventions. Instead of patenting them, he made them freely available to anyone who wished to use them. As the historian Michael Zuckerman forcefully observes: "With all his inventions, he held undeviatingly to an abhorrence of monopolistic exploitation of innovations that might better the human condition."⁵ In Franklin's words: "As we enjoy great Advantages from the Inventions of others, we should be glad of

an Opportunity to serve others by any Invention of ours, and this we should do freely and generously" (emphasis in original).⁶ Given his Baconian motivation for the pursuit of knowledge and his "insatiable curiosity" about human and natural phenomena, we can easily see why Franklin "told friends and family alike, he much preferred to have it said, 'He lived usefully' than 'He died rich.'"⁷

Bacon, as we note in Chapter 1, forcefully and frequently argued that effective collaborative organization was indispensable to produce knowledge. But for scientific inquiry to produce continuous human betterment, he emphasized, two other conditions must also be satisfied. First, knowledge must be pursued for charitable motives. Second, the scope of research must not be one-sided: It must comprehend the planned, dynamic, systemic, organizationally based, integrated production and use of knowledge for specified ends-in-view. Absent those two conditions, Bacon predicted, in effect, that the new mode of scientific inquiry would have an arrogantly overreaching character—Faustian, Frankensteinian, Strangelovian, in our terms.

Put another way, Bacon claimed that organized research entailed both the production and the use of knowledge. If production was isolated or separated from use, the results would not be beneficial. For learning and knowledge to function for good, effective organization must dynamically and systemically plan for the integrated production and use of learning and knowledge. Undertaken for amoral or immoral reasons, one-sided concentration on the production of new knowledge would have dreadful consequences—a Baconian insight and prophecy whose truth and power, alas, we see daily and horribly confirmed in 2017.⁸

Like Bacon, Franklin strongly believed that to advance the common good it was indispensable to create organizations capable of effectively integrating the production and use of learning and knowledge. From an early age he trained himself to (1) identify real-world problems that significantly affected the common good, (2) conceive the kinds of organizations that could take the course of action most likely to help solve these problems, and (3) develop and implement the strategies and tactics most likely both to create those organizations and to enable them to take the necessary courses of action. "This practical emphasis," James Campbell observes, was "central to all of his thinking to improve human well-being. . . . In general, his scientific work was in large part the imaginative attempt to use human rationality to advance the common good." For Campbell, Franklin is "the original American Pragmatist" because the "Pragmatic view that the discoveries of natural philosophy must be put to use in the practical affairs of people, that we must apply the knowledge we have gained in science to advance human well-being, is central to Franklin's way of thinking."⁹

To support this assessment, Campbell quotes the 1771 volume of the *Transactions of the American Philosophical Society*—the Baconian-inspired

organization Franklin had founded in 1743 and was president of in 1771: "Knowledge is of little use, when confined to mere speculation. But when speculative truths are reduced to practice, when theories, grounded upon experiments, are applied to the common purposes of life; and when, by these, agriculture is improved, trade enlarged, the acts of living made more easy and comfortable, and, of course, the increase and happiness of mankind promoted; knowledge then becomes really useful."¹⁰ Bacon was not the only source of Franklin's pragmatic philosophy, but directly and indirectly, he was the *primary* intellectual source of the pragmatic philosophy from which Franklin derived his theory of education.

Having studied history intensely and reflected thoughtfully on his own life experiences, Franklin had become convinced that "nothing is of more importance for the public weal, than to form and train up youth in wisdom and virtue."¹¹ That is, radically contrary to Karl Marx's theory that the economic subsystem functioned as the strategic subsystem of society, Franklin theorized that the schooling system was the strategic subsystem. In 1749, therefore, he proposed that the flourishing, dynamic, and cosmopolitan city of Philadelphia establish a radically innovative institution of higher education to "obtain the Advantages arising from an Increase of Knowledge."¹²

Unlike existing institutions of higher education in America and Europe, the college Franklin founded was a secular institution. Deliberately unaffiliated with any religious denomination, the College of Philadelphia (which subsequently became the University of Pennsylvania) was dedicated to the advancement of scientific learning and knowledge for the benefit of humanity. The historians Charles and Mary Beard glowingly characterized the institution as "a beacon light in the long history of human intelligence."¹³

Despite Franklin's brilliant originality—or, more precisely, *because* the educational system he envisioned was so brilliantly original—he found it impossible to establish the college as the radically innovative institution he outlined in his paper on the "Idea of the English School."¹⁴ As Franklin conceived it, instruction in such a school "would be conducted not in Latin, but entirely in English. The use of the vernacular language was the crucial issue and the main departure from the traditional school in Franklin's proposals, and he fully recognized its importance. English, the common tongue, would set the basis and the underlying tone of the new school. The use of the vernacular would save an immense amount of time, Franklin argued, and for most students preparing for a trade or profession, time was indeed precious."¹⁵

Franklin never changed his mind on this point: "Late in his life [in 1789] Franklin returned to the attack on the ancient languages, perhaps because he found their position [in American higher education] still unshaken. Commenting in his usual pungent style, he noted that Greek and Latin were 'the

quackery of literature.' Further, he wrote that they were the '*chapeau bras*' of learning, like the hat carried by an elegant European gentlemen [*sic*], a hat never put on the head for fear of disarranging the wig, but always carried quite uselessly under the arm."¹⁶

Franklin's general theory and system of education departed too radically from the traditional classical conception of higher education to be fully accepted by the elites whose support was mandatory to establish a college in Philadelphia. Ever the pragmatic realist, he yielded to their demands. Contrary to his theoretical propositions, Latin and Greek were the dominant languages of instruction at the College of Philadelphia. Inevitably, therefore, it functioned in practice as a much less radically innovative institution than the one he had envisioned and hoped to establish. In relative terms, however, it was a more progressive institution for the "good Education of Youth" than had yet been established anywhere else in the world.¹⁷

In this chapter we try to sketch partial but useful answers to three questions:

1. What were Franklin's goals for higher education?
2. How would these goals be realized in the new American society?
3. What methods did he think would best achieve these goals?

Franklin's Goals for Higher Education

Franklin's goals for higher education clearly derive from his theory of human nature. Contradicting Thomas Hobbes's atomistic theory, Franklin assumed that "Man" is naturally sociable and has a "strong natural Desire of being valu'd and esteem'd by the rest of his species," is "naturally benevolent as well as self-ish," can think and act rationally, and is naturally endowed with a "Desire of Happiness."¹⁸ To achieve happiness, Franklin believed, it was necessary both to satisfy "natural wants" (i.e., food, clothing, shelter) and to be virtuous.¹⁹ In their analysis of Franklin's views on human nature, virtue, and happiness, Elizabeth Flower and Murray G. Murphey quote Franklin's proposition that "without Virtue Man can have no Happiness in this World" and then observe: "There is no opposition for Franklin between benevolence to others and seeking happiness for oneself: both are parts of the same broad injunction to maximize the happiness of all God's creatures."²⁰ Franklin developed an integrated philosophy of life and education that we believe affirmed three systematically interrelated and strongly interactive principles: Do good to others; do well for oneself; be happy.

Given his theory of human nature and philosophy of life, it comes as no surprise that Franklin regarded Virtue, by which he meant service to others—in its largest sense, service to humanity—as the ultimate goal of education. He

wrote firmly against the grain of scholasticism, the prevailing thought-world of the European universities of his age, echoing Bacon's forceful criticisms of those institutions 150 years earlier. In Franklin's view, the true purpose of higher education was to supply young people with the knowledge, skills, and dispositions to do good. The college he envisioned would have had an *American* curriculum; taught in English, it would be pragmatic and utilitarian, suffused with "useful" knowledge. A pragmatic, benevolent businessman, Franklin believed that Americans, properly educated by their colleges, would be able and disposed to do good even as they strived to do well.

Galvanized by Bacon's contempt for traditional curricula and antiquated universities suffocating "from the gloom of cloister'd monks, and jargon-teaching schools," and by his own longstanding contempt for American colonial colleges like Harvard, which anachronistically tried to imitate them, Franklin wanted to create a radically different kind of college for the "good Education of Youth."²¹ As he conceived the ideal American college, its moral and intellectual components were highly intertwined. Moreover, its ends and means would be logically and practically integrated. John Locke, as well as Bacon, strongly influenced Franklin's educational ideas. In *Proposals Relating to the Education of Youth in Pensilvania*, Franklin emphasized Locke's prescription for education: "'Tis VIRTUE, then, direct VIRTUE, which is to be aim'd at in Education."²² After describing his own radically innovative curriculum, Franklin concluded his *Proposals* on this high note (the emphasis is his):

With the whole should be constantly inculcated and cultivated, that *Benignity of Mind*, which shows itself in *searching for* and *seizing every Opportunity to serve* and *to oblige*; and is the Foundation of what is called GOOD BREEDING; highly useful to the Possessor, and most agreeable to all.

The Idea of what is *true Merit*, should also be often presented to Youth, explain'd and impress'd on their Minds, as consisting in an *Inclination* join'd with an *Ability* to serve Mankind, one's Country, Friends and Family; which *Ability* is (with the Blessing of God) to be acquir'd or greatly encreas'd by *true Learning*; and should indeed be the great *Aim* and *End*^t of all Learning.²³

Franklin's footnote, designated by the dagger superscript, catches the essence of his public philosophy and devotion to the common good:

To have in View the *Glory* and *Service of God*, as some express themselves, is only the same Thing in other Words. For *Doing Good to Men* is the *only Service of God* in our Power; and to *imitate his Beneficence* is to *glorify him*.²⁴

Viewed in historical perspective and in light of Franklin's ardent Baconianism, his proposal for the reformation of higher education clearly was designed to give organizational form to Bacon's fervent "admonition" that utilitarian inquiry, learning, and schooling must be morally inspired, guided, and driven. Convinced, however, that morally inspired and intellectually challenging education is best developed in secular rather than sectarian institutions, Franklin strongly opposed colleges founded and controlled by religious denominations determined to promote their particular beliefs, rituals, and conceptions of morality.²⁵

All the existing colonial colleges were religiously founded and affiliated. Like the European colleges they anachronistically imitated, the colonial colleges were therefore subject to ecclesiastical control and restricted intellectual freedom and scientific inquiry. In radical contrast to them, the college Franklin envisioned would function, morally and intellectually, as an American institution that exemplified secular humanism and practiced Enlightenment ideals.²⁶ As a result, it would be free to develop the vastly more liberal and useful program of higher education required by the radically new kind of society developing in America.

A New Kind of Society Requires a New Kind of Education

Franklin's contempt for the existing colonial colleges stemmed in part from his conviction that they were radically dysfunctional for the new kind of society that was dynamically developing in the New World of America—a new kind of society that he had empirically observed, directly experienced, and personally benefited from in its archetypal community, Philadelphia. The classical curriculum of the colonial institutions essentially reproduced in America the traditional English curriculum designed to produce gentlemen of leisure and privilege capable of leading a highly stratified society. To Franklin, the colonial colleges were guilty of what we call the "mistransferrence fallacy." That is, they mindlessly transferred to America the classical college for gentlemen, which would be highly dysfunctional for the rising middle class produced by American conditions that worked against hereditary social stratification and fostered upward social mobility. To account for the radical differences between social mobility in America and social stratification in the Old World, Franklin developed a brilliantly original theory of population growth and stability.²⁷

Succinctly summarized, Franklin's theory, as detailed in his "Observations Concerning the Increase of Mankind, Peopling of Countries, &c." (1751), focused on the societal consequences of varying relationships between the amount and price of land and the amount and price of labor. In European countries, land was scarce in relation to the number of people. As a result, the

price of land was high, the price of labor was low, population grew slowly or was stable, and social stratification was rigid. In America, the land was vast in relation to the population. As a result, Franklin theorized and empirically observed, the price of land was low, the price of labor was high, the population multiplied rapidly, the rate of social mobility was high and growing, and "in another Century . . . the greatest number of *Englishmen* will be on . . . [the American] Side [of] the Water."²⁸ His basic theoretical proposition was that "People increase in Proportion to the Number of Marriages, and that is greater in Proportion to the Ease and Convenience of supporting a Family. When Families can be easily supported, more Persons marry, and earlier in Life."²⁹

What conditions determine that families *cannot* be easily supported? Families cannot be easily supported if "all Lands . . . [are] occupied and improved to the Height; those who cannot get Land, must Labour for others that have it; when Labourers are plenty, their Wages will be low; by low Wages a Family is supported with Difficulty; this Difficulty deters many from Marriage, who therefore long continue Servants and single."³⁰ What conditions differentiate America from Europe and produce radical differences in population growth and social mobility?

Europe is generally full settled with Husbandmen, Manufacturers, &c. and therefore cannot now much increase in People. . . . Land . . . [is plentiful] in *America*, and so cheap as that a labouring Man, that understands Husbandry, can in a short Time save Money enough to purchase a Piece of new Land sufficient for a Plantation, whereon he may subsist a Family; such are not afraid to marry; for if they even look far enough forward to consider how their Children when grown up are to be provided for, they see that more Land is to be had at Rates equally easy, all Circumstances considered.

Hence Marriages in *America* are more general, and more generally early, than in *Europe* . . . [and] our People must at least be doubled every 20 Years.³¹

Given this rapid increase in its population, America, according to Franklin, would not soon experience the European conditions that produce hereditary social stratification and work against social mobility. "Notwithstanding this Increase, so vast is the Territory of *North-America*, that it will require many Ages to settle it fully; and till it is fully settled, Labour will never be cheap here, where no Man continues long a Labourer for others, but gets a Plantation of his own, no Man continues long a Journeyman to a Trade, but goes among those new Settlers, and sets up for himself, &c. Hence, Labour is no cheaper now, in *Pennsylvania*, than it was 30 Years ago, tho' so many Thousand labouring People have been imported."³²

Franklin's brilliantly original theory of population growth and stability explains not only why social mobility was so much greater in America than in England but also why, as his own life demonstrated, ambitious and able men, no matter what their background, could make their way to fame and fortune here. And given the radical differences in American and English social mobility, Franklin logically concluded that the college he envisioned for ambitious young Americans should differ radically from the English classical colleges and their American imitators—colleges designed to produce upper-class gentlemen of leisure and privilege.³³ Given its secular nature, Enlightenment orientation, and, above all, location in a radically new kind of society, it logically followed that Franklin's college would use radically innovative methods and texts to cultivate in its students both their "Inclination" and their "Ability" to do "Good to Men."

Curriculum, Methods, and Texts

The college Franklin envisioned broke with the classical tradition and gave instruction entirely in the vernacular language. His radicalism is best appreciated if we note that all the existing colonial colleges required applicants for admission to be proficient in Latin and Greek. The historian of education Bruce Kimball offers a succinct summary of the classical curriculum and methodology:

Apart from divinity, freshmen devoted nearly all their time to Greek grammar for "testament" and Latin grammar in orations, plus some arithmetic. Sophomores continued these studies while undertaking rhetoric, including perhaps some belles lettres in the vernacular, and picking up logic and advanced arithmetic or algebra. Juniors continued Latin, Greek and rhetoric and passed through algebra, geometry, and perhaps trigonometry or "fluxions," along with a course in natural philosophy. Seniors reviewed the previous three years, studied metaphysics, took the crowning course in moral philosophy from the president, and received more exposure to natural philosophy in the spring term if there was time. This generalized frame of studies was pursued through the long-standing practice of recitations and declamations, with the lecture format slowly creeping in.³⁴

An American college's curriculum, methodology, and texts, Franklin theorized, should be appropriate for the education and development of *American* youth. For a college in Philadelphia to insist on instruction in Latin and Greek and a curriculum dominated by intensive study of classical texts in their original languages simply exemplified the disastrous tendency "in

mankind [to] an unaccountable Prejudice in favour of ancient Customs and Habitues, which inclines to a Continuance of them after the Circumstances, which formerly made them useful, cease to exist."³⁵ Franklin followed Bacon's lead and, in effect, repudiated Plato's highly speculative theory of the relationship between knowledge and wisdom.³⁶ As the authors of a magisterial history of American philosophy paraphrase Franklin's argument: "Knowledge is wisdom only if it is useful for the satisfaction of [human] needs: hence in all his schemes for the promotion and diffusion of knowledge, Franklin emphasized 'useful knowledge.'"³⁷

Rather than succumb to "an unaccountable Prejudice" and historical inertia, Franklin wanted instruction to be given in English, based on texts in English, and supplemented by active and challenging exercises performed in English. That would create the necessary conditions for American students to learn how to adapt to their physical, social, and moral environments and develop the character, habits, and forms of expression they needed to pursue interrelated benevolent and practical goals and lead virtuous and happy lives.

Franklin's *Proposals* made History and English the primary subjects of the curriculum, to be taught in ways that helped students develop both their "Inclination" and their "Ability" to do good. That is, they should learn not only to want to do good but also how to do the particular good they want to do. Franklin's educational theory rested on the effective integration of ends and means: He explicitly specified both the goal he wanted to achieve and, in great detail, the means to achieve it.³⁸

Students' inclination and ability to do good are best developed when they learn from concrete historical examples, not when "abstract Philosophical Lectures" are delivered to them.³⁹ "Indeed," Franklin argued, "the general natural Tendency of Reading good History, must be, to fix in the Minds of Youth deep Impressions of the Beauty and Usefulness of Virtue of all Kinds, Publick Spirit, Fortitude, &c."⁴⁰ To support this argument for using history to achieve those interrelated and interactive goals, Franklin quoted George Turnbull's treatise on *Liberal Education*: "History points out in Examples, as in a Glass, all the Passions of the human Heart, and all their various Workings in different Circumstances, all the Virtues and all the Vices human Nature is capable of; all the Snares, all the Temptations, all the Vicissitudes and Incidents of human Life; and gives Occasion for Explaining all the Rules of Prudence, Decency, Justice and Integrity, in private Oeconomy, and in short all the Laws of natural Reason."⁴¹

Among other benefits, Franklin asserted, students would learn from history "the wonderful Effects of ORATORY in governing, turning and leading great Bodies of Mankind, Armies, Cities, Nations." However, instead of relying exclusively on conventional historical texts, particularly those referring to ancient times, Franklin advocated the radical innovation of teaching the

power and methods of oratory by using texts drawn from modern journalism. "Modern Political Oratory," he observed, "being chiefly performed by the Pen and Press, its Advantages over the Antient in some Respects are to be shown; as that its Effects are more extensive, more lasting, &c."⁴²

Franklin's conception of how history should be taught and learned was broad. It should be taught in such a way that "almost all kinds of useful knowledge . . . [could be] introduc'd to Advantage, and with Pleasure to the Student." Among the subjects that could and should be studied historically, Franklin cited geography, chronology, ancient customs, morality, and commerce.⁴³ He proposed that students explore the history of commerce—in innovative ways that would help them better understand "Mechanical Philosophy," as well as how interrelated technological and economic changes produced significant societal changes and significantly improved the quality of human life:

The History of Commerce, of the Invention of Arts, Rise of Manufactures, Progress of Trade, Change of its Seats, with the Reasons, Causes, &c. may also be made entertaining to Youth, and will be useful to all. And this, with the Accounts in other History of the prodigious Force and Effect of Engines and Machines used in War, will naturally introduce a Desire to be instructed in Mechanicks, and to be inform'd of the Principles of that Art by which weak Men perform such Wonders, Labour is sav'd, Manufactures expedited, &c. &c. This will be the Time to show them Prints of antient and modern Machines, to explain them, to let them be copied, and to give Lectures in Mechanical Philosophy.⁴⁴

In addition to emphasizing the practical use of studying the history of commerce, Franklin emphasized the practical value of "Natural History" (an eighteenth-century term for science):

With the History of Men, Times and Nations, should be read at proper Hours or Days, some of the best *Histories of Nature*, which would not only be delightful to Youth, and furnish them with Matter for their Letters, &c. as well as other History; but afterwards of great Use to them, whether they are Merchants, Handicrafts; or Divines; enabling the first the better to understand many Commodities, Drugs, &c. the second to improve his Trade or Handicraft by new Mixtures, Materials, &c. and the last to adorn his Discourses by beautiful Comparisons, and strengthen them by new Proofs of Divine Providence. The Conversation of all will be improved by it, as Occasions frequently occur of making Natural Observations, which are instructive, agreeable, and entertaining in almost all Companies. *Natural History* will

also afford Opportunities of introducing many Observations, relating to the Preservation of Health, which may be afterwards of great Use.⁴⁵

Breaking even more radically with the classical curriculum and methodology, Franklin added that the students should, in effect, "learn by doing" (as John Dewey later termed the method). While students were "reading Natural History, might not a little Gardening, Planting, Grafting, Inoculating, &c. be taught and practiced; and now and then Excursions made to the neighboring Plantations of the best Farmers, their Methods observ'd and reason'd upon for the Information of Youth. The Improvement of Agriculture being useful to all, and Skill in it no Disparagement to any."⁴⁶

Learning by doing also applied to the study of English and the development of writing skills. In his paper on the "Idea of the English School," Franklin noted that in addition to critically reading the "best English authors" and innovative texts such as contemporary magazine articles,⁴⁷ students should continuously practice "Writing Letters to each other on any common Occurrences, and on various Subjects, imaginary Business, &c. containing little Stories, Accounts of their late Reading, what Parts of Authors please them, and why. Letters of Congratulation, of Compliment, of Request, of Thanks, of Recommendation, of Admonition, of Consolation, of Expostulation, Excuse, &c. In these they should be taught to express themselves clearly, concisely, and naturally, without affected Words, or high-flown Phrases. All their Letters to pass through the Master's Hand, who is to point out the Faults, advise the Corrections, and commend what he finds right."⁴⁸

Learning by doing was not restricted to letter writing. Students should also "write little Essays in Prose; and sometimes in Verse, not to make them Poets, but for this Reason, that nothing acquaints a Lad so speedily with Variety of Expressions, as the Necessity of finding such Words and Phrases as will suit with the Measure, Sound and Rhime of Verse, and at the same Time will express the Sentiment. These Essays should all pass under the Master's Eye, who will point out their Faults, and put the Writer on correcting them."⁴⁹

Additional examples of Franklin's innovative methods and texts would only belabor the point. The college Franklin envisioned would have developed both a highly pragmatic, integrated, interactive set of goals and the means to achieve them, radically transforming American higher education. Instead of equipping a small number of upper-class students to become cultivated and socially prominent gentlemen in a highly stratified society, Franklin proposed to educate a large number of non-elite members of a socially mobile, rising middle class, who would possess both the "Inclination" and the "Ability" to "serve Mankind, one's Country, Friends and Family." As Edward Potts Cheyney regretfully observed in his *History of the University of Pennsylvania, 1740-1940*, the college Franklin envisioned would have

provided “an education for citizenship” and led to “mercantile and civic success and usefulness.” We say “regretfully observed” because Cheyney concluded his discussion on a somber, critical note: “It is unfortunate that it was never tried.”⁵⁰

The Burden of “Ancient Customs and Habitudes”

Viewed in historical perspective, we can see that Franklin’s proposal for the New World reformation of higher education was designed to give organizational form to Bacon’s fervent “admonition” that utilitarian inquiry, learning, and schooling should be morally inspired, guided, and driven. Both Bacon and Franklin asked, “What are the true ends of knowledge” (and learning), and why should they be sought? In Bacon’s words, they should be sought “not either for the pleasure of the mind, or for contention, or for superiority to others, or for profit, or fame, or power, or any of these inferior things.”⁵¹ Positively stated in Franklin’s eighteenth-century secular terms, they should be sought for “Doing Good to Men.”

Unlike the appeals made for all the other colonial colleges, Franklin’s proposal to establish a college in Philadelphia did not seek support on religious grounds. Nor did it base its appeal solely on the high-minded Baconian and Lockean grounds sketched above. On the contrary: Though less blatantly than promoters of other colonial colleges (e.g., the Brown brothers of Providence, Rhode Island), Franklin emphasized that his proposal would bring significant economic benefits to Philadelphia. Although he envisioned a college dedicated to what we would term “education for virtue,” he argued that it would also produce education for profit (also our term).⁵² Consciously or not, Franklin ignored the contradictions and tensions inherent in any educational institution designed to pursue such radically different aims.

Soon after the college began operation in 1751, Franklin left Philadelphia on a variety of missions that essentially kept him in Europe for more than thirty years. The men who controlled and managed the college during his long absence were strongly committed, in both theory and practice, to the traditional classical model. Nothing resembling Franklin’s proposed Baconian reformation of higher education, therefore, was ever put into practice in Philadelphia—or anywhere else, to our knowledge.

Shortly before he died in 1790, Franklin angrily denounced the trustees of what by then had become, through a remarkably convoluted process, the University of Pennsylvania. Their disastrous “Deviations” from his original plan, he charged, their deceptions and bad faith, had produced an institution criticized severely by “the Publick” and suffering financially from the “great Loss of Revenue” brought about by their terrible “Mismanagement.” Instead of conducting the institution along the lines of his innovative and utilitarian

English School, they had run a traditional college based on the outmoded Latin and Greek languages wholly unsuited to "such a country as ours."⁵³

Why had the trustees followed this conservative, disastrous course? Franklin's answer to his own question invoked the general historical theory of intellectual and institutional inertia that Dewey would later invoke to explain his own failure to bring about progressive innovations in the American schooling and political systems. To repeat Franklin's own summary statement of the inertia theory (which he may well have gotten from Bacon): "There is in Mankind an unaccountable Prejudice in favour of ancient Customs and Habitudes, which inclines to a Continuance of them after the Circumstances, which formerly made them useful, cease to exist."⁵⁴

CHAPTER 2

1. Benjamin Franklin, *Poor Richard Improved*, 1749, in *Writings*, ed. J. A. Leo Lemay (New York: Literary Classics of the United States and Library of America, 1987), 1252.

2. Quoted *ibid.* It is an excerpt from James Thomson's *The Seasons*, lines 1538–1549 49 (London: Printed by Henry Woodfall for A. Millar, in the Strand, 1744), 118, reprinted in Gale/Cengage, *Eighteenth Century Collections Online*, ESTC number T141533. The passage comes from a revised version of the “Summer” section of Thomson's long poem *The Seasons* and seems to have made its first appearance in the 1744 revision of the work. The original version of “Summer” was published in 1727, and the first version of *The Seasons* was published in 1730.

3. Whitfield J. Bell quoted in James Campbell, *Recovering Benjamin Franklin: An Exploration of a Life of Science and Service* (Chicago: Open Court, 1999), 78.

4. Francis Bacon, preface to *The Great Instauration*, in *The Works of Francis Bacon, Baron of Verulam, Viscount St. Alban, and Lord High Chancellor of England*, ed. James Spedding, Robert Leslie Ellis, and Douglas Denon Heath, vol. 1: *Translations of the Philosophical Works* (London: Longman, 1858), 20–21.

5. Michael Zuckerman, “An Inclination Joined with an Ability to Serve,” in *The Autobiography of Benjamin Franklin*, Penn Reading Project edition, ed. Peter Conn (Philadelphia: University of Pennsylvania Press, 2005), 156.

6. Quoted in Campbell, *Recovering Benjamin Franklin*, 68.
7. Quoted in Zuckerman, "An Inclination," 156. Edmund S. Morgan, *Benjamin Franklin* (New Haven, CT: Yale University Press, 2002), 5, cites Franklin's "most conspicuous virtue, the thing that would earn him world-wide fame in his own lifetime: his insatiable curiosity."
8. For a fuller discussion of Bacon's emphasis on the need to integrate the production and use of knowledge, see Lee Benson and Ira Harkavy, "Progressing Beyond the Welfare State," *Universities and Community Schools* 2, nos. 1-2 (1991): 6-8.
9. Campbell, *Recovering Benjamin Franklin*, 86, 260-261.
10. Quoted *ibid.*, 87. For an insightful discussion of Franklin's capacity to identify and propose organizational solutions to strategic problems, see *ibid.*, 76-89.
11. Benjamin Franklin to Samuel Johnson, Philadelphia, 23 August 1750, in *Benjamin Franklin on Education*, ed. John Hardin Best, Classics in Education 14 (New York: Bureau of Publications, Teachers College, Columbia University, 1962), 163. This very important letter on education can be found on pages 162-164. Best's volume is a valuable source for Franklin's writings on education, and we have benefited from his thoughtful and stimulating commentaries on them.
12. Benjamin Franklin, *Proposals Relating to the Education of Youth in Pensilvania*, in Best, *Franklin on Education*, 129.
13. Charles A. Beard and Mary R. Beard, *The Rise of American Civilization* (New York: Macmillan, 1930), 173.
14. Franklin's paper "Idea of the English School, Sketch'd Out for the Consideration of the Trustees of the Philadelphia Academy," is conveniently reprinted in Best, *Franklin on Education*, 165-171.
15. John Hardin Best, "Franklin and the Enlightened Education in America," *ibid.*, 13-14.
16. *Ibid.*, 14-15.
17. Franklin, *Proposals*, 128. For an insightful analysis of Franklin's compromises on the vernacular language and other issues, see Lorraine Smith Pangle and Thomas L. Pangle, "Benjamin Franklin and the Idea of a Distinctively American Academy," in *The Learning of Liberty: The Educational Ideas of the American Founders*, American Political Thought Series (Lawrence: University Press of Kansas, 1993), 75-90. Our understanding of Franklin's educational ideas has benefited from this perceptive chapter. Our appreciation of the numerous intense conflicts in Philadelphia that powerfully worked against the full realization of Franklin's vision of higher education also benefited from J. David Hoeveler's chapter, "The College of Philadelphia: The Perils of Neutrality," in *Creating the American Mind: Intellect and Politics in the Colonial Colleges* (Lanham, MD: Rowman and Littlefield, 2002), 155-180.
18. Benjamin Franklin quoted in Campbell, *Recovering Benjamin Franklin*, 197, 99; and in Zuckerman, "An Inclination," 154.
19. Elizabeth Flower and Murray G. Murphey, *A History of Philosophy in America*, vol. 1 (New York: Capricorn Books and G. P. Putnam's Sons, 1977), 110.
20. *Ibid.*, 109-110, quotation on 109.
21. Franklin, *Proposals*, 128.
22. *Ibid.*, 150-151n30.
23. *Ibid.*, 149-150.
24. *Ibid.*, 150n30. For Locke's influence and Franklin's specification of his primary goal for the education of American youth, see Best, "Franklin and the Enlightened Education," 12; Franklin, *Proposals*, 127, 149-151.
25. For Franklin's conviction that the college he envisioned should "not be a religiously affiliated, elite bastion like the four colleges (Harvard, William and Mary, Yale, and Prince-

ton) that already existed in the colonies," see Walter Isaacson, *Benjamin Franklin: An American Life* (New York: Simon and Schuster, 2003), 146–147.

26. Best neatly summarizes Franklin's educational views: "The educational thought of the Enlightenment made a profound impression on Franklin, and much of his greatness lay in a characteristic ability to translate European ideas into American designs for action." "Franklin and the Enlightened Education," 12.

27. Two leading historians of eighteenth-century Philadelphia evoke the environment in which Franklin envisioned a radically new kind of college for the "rising middle class" developing in America: "Much of what we call the Enlightenment was merely the intellectual and philosophical expression of the practical, secular, humane genius of the rising middle class. Hence the accomplishment of many of its objectives was the greater in what was probably the leading, certainly the most unfettered, middle-class community of the Western world, the city on the Delaware, where admission to the middle class was freest, its opportunities and privileges greatest, and the literate base of society most broad. . . . There was here no accumulated rubbish of ideas and institutions which, gathering for centuries, had to be swept aside before progress and enlightenment could begin." Carl Bridenbaugh and Jessica Bridenbaugh, *Rebels and Gentlemen: Philadelphia in the Age of Franklin* (New York: Reynal and Hitchcock, 1942), 363–364.

28. Benjamin Franklin, "Observations Concerning the Increase of Mankind, Peopling of Countries, &c.," in *Writings*, 373.

29. *Ibid.*, 367.

30. *Ibid.*, 368.

31. *Ibid.*, 368–369.

32. *Ibid.*, 369.

33. For an illuminating analysis of the English classical colleges that the colonial colleges imitated, see Bruce A. Kimball, *Orators and Philosophers: A History of the Idea of Liberal Education* (New York: Teachers College Press, Columbia University, 1986), 114–141. To explain why students attended the colonial colleges, Kimball quotes the historian Daniel H. Calhoun: "For many [colonial] students, perhaps for most, liberal education served no functions of any specific use to society. Latin and Greek and philosophy, and the having attended some higher school, were marks of prestige and breeding" (138).

34. *Ibid.*, 138–139.

35. Benjamin Franklin, "Observations Relative to the Intentions of the Original Founders of the Academy in Philadelphia," in Best, *Franklin on Education*, 173.

36. Platonic thought has had perhaps its greatest impact on Western education. For Plato, learning occurred through contemplative thought, not through action and reflection. Dividing the world into ideal and material universes, Plato viewed knowledge as deriving from the ideal, spiritual universe of permanent and fixed ideas. He conceptualized the material world of objects and actions as merely "a shadowy, fleeting world" of imperfect imitations. Quotation from R. Freeman Butts, *A Culture History of Western Education: The Social and Intellectual Foundations*, 2nd ed. (New York: McGraw-Hill, 1955), 46.

37. Flower and Murphey, *Philosophy in America*, 1:110.

38. Franklin, *Proposals*, 126–152.

39. Dr. George Turnbull, quoted *ibid.*, 142n18.

40. *Ibid.*, 142.

41. Turnbull, quoted *ibid.*, 142n18.

42. *Ibid.*, 143.

43. *Ibid.*, 141–142.

44. *Ibid.*, 149.

45. Ibid., 146–148.
46. Ibid., 148.
47. Franklin, “Idea of the English School,” 170.
48. Ibid., 168–169.
49. Ibid., 169–170.
50. Edward Potts Cheyney, *History of the University of Pennsylvania, 1740–1940* (Philadelphia: University of Pennsylvania Press, 1940), 29.
51. Bacon, preface to *The Great Instauration*, 20–21.
52. Benjamin Franklin, “On the Need for an Academy,” in Best, *Franklin on Education*, 124–126.
53. Franklin, “Observations Relative to the Intentions of the Original Founders,” 171–174.
54. Ibid., 173.