

Redefining U.S. Education

A Systematic Approach to Teaching



William F. Roth and Ian M. Roth



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A PRODUCTIVITY PRESS BOOK

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Preface

Redefining U.S. Education: A Systematic Approach to Teaching presents a new model for primary- and secondary-level education that solves two-centuries-old dilemmas through the more effective use of technology. The book begins by discussing the role education should play in the modern world. It then explores the philosophical and theoretical roots of the U.S. education system developed in Europe several centuries ago, introducing the first major dilemma addressed even then—should emphasis be on ensuring that all students reach a defined level of expertise or on encouraging individual students to develop their potential to the fullest possible extent? The book then traces the history of education theory in the United States from early colonial days to the present, introducing a second major challenge still being struggled with—what degree of curriculum standardization should we strive for in order to “level the playing field?”

Next, the book returns to Europe and the Bologna Process, identifying its advantages and shortcomings as an attempt at standardization. It then travels to Japan, a country that represents probably the epitome in terms of standardization, and discusses the damage this over-emphasis has done to Japanese society, and especially to the Japanese education system.

Finally, the book returns to the United States and presents a new paradigm for primary and secondary education that deals with the initial dilemma introduced—group versus the individual—as well as with the standardization issue by

utilizing technology in a more effective manner. The paradigm does so by allowing students to use computer programs to progress at their own rate in subjects they enjoy and excel at while, concurrently, ensuring that they get the basics—both academic and social. This new paradigm forces changes in our grade-level structure, in the way classes are run, and in the way subjects are taught and students are graded.

Authors

William F. Roth, MSW, PhD, is currently a professor at Kutztown University in Pennsylvania, where he teaches courses in strategic planning, organization design, ethics, and management theory. Previously, he taught for 16 years at DeSales University, where he held the McCabe Endowed Chair for Business and Society. Dr. Roth earned his PhD at The Wharton School, his master's in social work at the University of Pennsylvania, and his bachelor's in economic geography at Dartmouth College. As a consultant, Dr. Roth has worked on design and regional planning projects in Saudi Arabia, Iran, Mexico, and several locations in the United States. Previously, he spent 5 years with the poverty program and the civil rights movement in the Deep South. In addition to this book, Dr. Roth has authored eight others, the last two, *Comprehensive Healthcare for the U.S.: An Idealized Model* and *Out of the Box Thinking for Successful Managers*, published by Productivity Press. Sixty of his articles have been featured in a wide range of professional journals. Dr. Roth also writes fiction and has published several prize winning short stories.

Ian M. Roth, MS, graduated from Vassar College with his BA in philosophy. He then earned his MS in global and international education from Drexel University, where his thesis addressed using learning technology to teach

multiculturalism in Japanese primary schools. Ian has been living in Japan since college and has taught there at the primary, secondary, and university levels. Currently, he is studying for his PhD in organizational systems at Saybrook University in San Francisco.

Chapter 1

Growth versus Development

1.1 A More Balanced Perspective?

Our societal ethic is in transition. We are shifting gradually from the *growth ethic* to the *development ethic*. The growth ethic, which drove the Industrial Revolution, basically says that only those things that can be measured quantitatively should be taken into consideration when attempting to improve our quality of life. It is a product of the U.S.'s love affair with the *scientific method* that has been the wellspring of our tremendous economic and technological advancements. "Growth," by definition, is based on the ongoing desire to get bigger. This ongoing quest to gain "more" of things that are physically measurable and frequently limited creates a competitive environment.

The oncoming development ethic, which incorporates the growth ethic into something much richer, is actually a product of ancient Greek philosophy. Aristotle is, perhaps, its main architect. He said that life has "three primary dimensions—*making, doing, and knowing*." "Making" has to do with the production of things, including the material goods necessary

for survival as well as those desired. “Doing” involves the quest for moral virtue, with *happiness* being the essence of this virtue. Aristotle said that the quest for happiness was basically a selfish one, but that man should realize cannot achieve personal happiness without taking into account the happiness of others. “Knowing,” the third primary dimension, concerns to gaining the knowledge necessary to succeed at “making” and “doing.”

Aristotle believed that our major objective should not be to simply “grow” in terms of the numbers, but to realize and enjoy our positive human potential to the fullest possible extent. To do so, Aristotle and other advocates of the development ethic believed that four societal inputs are necessary. The first is adequate wealth (*plenty*) produced by a healthy economy. The second is a system of governance (*good*) on all levels (national, local, and workplace) that facilitates development and protects against those who would block it. The third is access to the necessary educational vehicle (*truth*) that provides the opportunity to learn how to learn. The fourth is an environment that encourages development by both stimulating and soothing (*beauty*).

All these four inputs are required for us to develop our potential fully, but the most important one, the one upon which the others depend, is “plenty.” Historically, cultures that have made the greatest contributions have all been built on a strong economic foundation. Without a solid foundation of “plenty,” a foundation that generates sufficient wealth, the other required inputs are more difficult, if not impossible, to achieve. (Roth, 2005, p. 53)

The development ethic believes that gaining control over these resources and over our lives in general is critical. It says that while scientific method remains important to our advancement, incorporating human values into the equation is equally as important. The development ethic encourages cooperation as the most effective means of achieving the necessary balance. It says that once we have realized our

potential we should turn around and use that potential to help improve society and generate more of the inputs necessary to facilitate the developmental efforts of others.

It is interesting to note that in the early history of the United States, some of our most noted leaders were concerned with introducing the development ethic to society. Thomas Jefferson, John Adams, and Benjamin Franklin spent several years in the drawing rooms of Paris as part of a delegation sent to convince the French to aid the newly formed country in its struggle to gain independence from Great Britain. There they took part in conversations flavored by renewed interest in ancient Greek philosophy and became familiar with the concept.

1.2 Evolution of Society's Shaping Ethic

Actually, the development ethic has popped up periodically throughout the course of western history. It was a cornerstone to the ancient Greece civilization. The Romans, who followed Greece as the major power in that part of the world, adopted it and built upon it one of the most progressive and long-lasting empires in history.

After that, however, things went downhill rapidly. Europe, beset by invasion, famine, rampant disease, continual conflict, and ignorance, entered the Dark Ages. The nobility's main interest during this period was in learning how to wage better wars. The only educated class was the priesthood, which used this advantage to dominate the political scene.

The Dark Ages led into the Medieval Period that began roughly (very roughly) about 500 AD. During the Medieval Period the quality of life improved a bit, but not very much. The life expectancy for those who survived infancy hovered around the 30s, and, as a result, the driving force in society became the *survival ethic*.

During the ensuing Renaissance Period (roughly about 1300–1500), as a result of increased contact and trade with

other parts of the world, life did improve tremendously, at least for the upper class. The development ethic was revived, with emphasis shifting to leading a balanced life. The *Renaissance Man* was good at business (plenty), a wise and compassionate leader (good), well educated (truth), and a practitioner of the arts—music, painting, etc. (beauty). By the end of the Renaissance, the middle class had become the driving force behind economic growth. Merchants realized that the most important input for development was wealth and spent their lives accumulating it, mainly through trade.

Emphasis during the Protestant Reformation Period (roughly around 1500–1650) that followed the Renaissance Period was on increasing the amount of general wealth available. The belief was that hard work led to increased wealth which, in turn, led to better opportunities for overall development. This translated to the *work ethic*, which is still popular today as a guiding force for many.

Due to the increasing amounts of wealth generated during the Protestant Reformation Period and owing to the greater distribution of that wealth amongst a greater portion of the population, Europe next entered the Enlightenment Period (roughly about 1650–1800) believing that everybody could now participate in the development of their potential. Aristotle's teachings came into vogue again. Leading thinkers during the Enlightenment Period began designing the social systems—the economic systems, the educational systems, the governmental systems, the city planning systems—which were important to the development of that potential.

However, it was eventually realized that even though society now had the social system designs necessary for universal development, it continued to lack in the necessary wealth needed to put them into place. So, during the early Industrial Revolution, first Europe, and then the United States went back to generating the necessary wealth. Emphasis was now on growth as defined by the amount of wealth available, the number of automobiles and homes and widgets and

pumpkins and pairs of shoes possessed. The *growth ethic* replaced the development ethic and has prevailed into modern times. More was better; the numbers were what society paid attention to.

Obviously, in today's world, we have generated enough wealth to return to the development ethic as our driving force, at least in western society. But in the United States, at least, we are having a hard time getting there, and we are having a hard time turning the corner. The growth ethic is much easier to deal with. Its rewards are more obvious and short term, while its failures, in most cases, tend to be intangible, evident only in the long term and easily ignored.

1.3 Academia Is Slow to Catch on

The academic community should be one of the leaders in the movement to adopt the development ethic in the United States. But the academic community is having trouble accepting it. The modifications necessary—due to a variety of factors ranging from tenure, to rampant territorialism, to rigid hierarchies, to an overpowering bureaucracy, to the mold mentality, to the ivory tower mentality, to an unwillingness to take full advantage of technology—are not occurring as rapidly as desired. The academic community, for the most part, continues to base its approach on a growth ethic mentality.

For example, education is still fragmented, still based on the analytical, break-it-down-and-learn-the-parts model that is foundational to scientific method and to growth ethic thinking. Classes for English, math, social studies, science, and art are still taught separately. This might be considered by some to be a necessity during the early stages of the education process in order to teach primary skills, but the mindset persists all the way into the graduate level. MBA programs, for example, teach finance, planning, human resources, marketing, ethics, and production separately, without the necessary attempts at

integration, despite the fact that integration is critical for the full development of potential.

For example, teachers in the traditional growth-oriented classroom setting focused on developing a pedagogy that facilitates standardization and also facilitates all students reaching that level of learning where they are economically productive, where they can help generate wealth, and where they can help generate more of everything. In the workplace, standardization, until very recently, has been the key to increased productivity—the standardization of both technology and processes. This focus has spilled over into academia.

The problem with such spill over is that people are different from machines and processes, a fact that has been largely ignored. As a result, our education system, due to circumstances beyond its control, has become a great equalizer. Rather than a system that encourages students to focus on their individual strengths, they frequently struggle to do so, and one has to struggle for so long before he or she simply shrugs, shuts down, and falls into line.

A growing number of educators are beginning to believe that as we move into a different kind of world with different possibilities, this traditional approach to teaching is no longer the most productive, rather, in fact, it is becoming increasingly counter-productive. A growing number of educators are also beginning to understand that if we are to continue progressing as a nation, we need to move onto the development ethic, where more emphasis must be placed on the development of each student's unique potential.

Is this possible? Yes, it is. For one thing, the necessary technology has finally arrived. Computers are going to make the difference. They are going to allow us to finally enter the “new world” in the realm of education. But before getting into what is going on today and suggesting changes, we need to understand the evolution of the US public education system. We need to talk about how we got to where we are in terms of our system's strengths and weaknesses. To facilitate this

effort, we will draw from the experiences of two other major societies, also known for their progressiveness: the societies of Europe and Japan. We shall try to learn from their successes and failures by relating those successes and failures to our own situation.

As a first step in this process, we will discuss the evolution of education in Europe where the U.S. system finds its roots, where most of the philosophy upon which our system is or, at least, was originally based evolved over a period of more than 1000 years, contributed by some of the western world's greatest minds.

Chapter 2

The Historic Evolution of Education in Europe: A Brief Synopsis

2.1 Only for the Chosen

During the previously mentioned Medieval Period in Europe that began as part of the Dark Ages following the collapse of the Roman Empire, education was controlled by the Church. Most schools were affiliated with cathedrals, and their curriculum was dictated by the Catholic hierarchy. The main purpose of these schools was to train clergy. The only subjects, besides religion, being taught were reading, writing, and sometimes Latin. Eventually, owing to the influence of humanists, the curriculum expanded to include the study of Greek and Roman writings.

There were two reasons for this elitist attitude. One was the Church's belief that education could be dangerous; that it encouraged questioning and might lead parishioners into sinful thought, into questioning the Church's dictates and control. For their own good, therefore, it was best to keep the common folk illiterate in order to keep them from gaining access

to the information and knowledge that led to such questioning. The second less-philosophical reason arose from the fact that each document and each book produced had to be hand-written with a quill pen and a pot of ink. The eraser had not yet been invented, so any mistake made, any blotch, or any misshapen letter necessitated rewriting the entire page. Finishing a complete document sometimes took months or even years. Obviously, at that rate of production, relatively few books existed. Those that did exist were treasured and carefully guarded. Passing them around didn't make much sense in terms of wear and tear; so they were kept locked safely away in somebody's library, inaccessible to the masses.

The opportunity to gain education improved somewhat during the Renaissance. However, it was during the Protestant Reformation that it really took off. This happened, again, for two reasons. One again had to do with values. The Protestant Reformation resulted at least as much from economic as it did from religious considerations. Because of new markets, new advances in science and technology, and new sources of raw materials, including the North and South American continents, greater amounts of wealth could be generated, and everybody wanted a share of it.

The new Protestant religion gave commoners the rationalization they needed to break away from the paternalism of the Catholic Church and to try their luck. It did so by reshaping a traditional Catholic concept, that of "good works." The concept of good works had to do with efforts contributed by parishioners to the community, say, to a hospital or an orphanage, with no expectation of earthly reward. The reward sought from providing such services was "grace," or points toward getting into heaven. Martin Luther (1483–1546), a Catholic priest considered the father of the Protestant Reformation, declared that all work—be it building houses or working in the fields or making shoes—should be classified as good works, and considered worthy of grace because it contributed to the welfare of the community. He also legitimized the quest

for profit, which the Catholic Church had deemed sinful, by deciding that the amount of profit one earned was a measure of how hard one had worked, and, therefore, of how much grace one deserved.

Owing largely to this change in philosophy, the middle class evolved. The citizens in this class were the businessmen. One of the prerequisites to succeeding as such was education. Primary producers, middlemen, and investors should be able to read, write, work with numbers, understand geography, and understand the law. Congregation members were encouraged to take greater control of their lives. Children were required to attend primary school so that the good of society might be served by the development of their potential.

The second reason, again, was technological. Quite simply, in 1445 Gutenberg built the first printing press. This invention eventually allowed printers to produce copies of documents and books at a rate and price that made the information and knowledge upon which education is based accessible to a much larger audience.

The next step, of course, now that education had begun shifting from the status of a privilege to that of a necessity, was to try to figure out how to provide it on a universal basis. Germany enacted Europe's first compulsory education laws in the mid-1500s. Other countries followed suit. The purpose of education during this period was two-fold. First, it was offered to make students better Christians, so The Bible and other religious passages were the major texts used in reading lessons. Second, it provided skills that allowed people to improve themselves economically.

2.2 Theoretical Roots of Modern Education

The following period in European history was the Enlightenment Period. With its tremendous optimism and its feet fixed firmly in the development ethic, the Enlightenment