EDUCATION: PROBLEMS AND POSSIBILITIES

By William George Jordan

A SERIES OF 4 ARTICLES PUBLISHED IN THE 1923 MARCH, APRIL, MAY AND JUNE ISSUES OF *THE FORUM*

EDITED BY
RODNEY W MANN
JANUARY 2012

INTRODUCTION



The author of the following compilation of articles on education, William George Jordan, was a strong advocate of changing the focus of education. He argues that "there is not one single power, faculty, process or quality of the mind that is trained and developed by our present system of education. Our powers are not merely untrained—they are positively mistrained." He says that "the theory of education, not as we get it from the ideals of educators but as it is evidenced in every detail of the system as it actually exists today, can be given in a single sentence: Education believes that by forcing a certain amount of knowledge, principally by means of textbooks, into the minds of children, that somehow in the divine mystery of mental processes this knowledge will not only be retained, but the mind of the individual will be exercised, trained and developed."

Jordan advocates for a system whose "final aim ... is to teach thinking, exercising the individual not in what to think, but in **how** to think, making all parts of his mental machine work individually at their greatest ease, smoothness and rapidity and in finest co-operation."

In 1891 Jordan resigned from his position as managing editor of *Current Literature*, a prominent magazine devoted to promoting literature, to lecture on educational reform and a new model he called "mental training". He moved from New York to Chicago and began to teach a series of 12 lectures:

- 1. Analysis: The Revealer of Law
- 2. Genius, Education, and Habit
- 3. Memory and the Simplicity of Mind
- 4. The Senses and their Training
- 5. Observation and Reading
- 6. Conversation: Its Laws and its Powers
- 7. Paradox: A Study in Polarity
- 8. Simplicity and Uniformity of Nature
- 9. Individuality
- 10. Character: How Best to Study It.
- 11. Trifles in Life and Mind
- 12. Reserve Power in Nature and Mind

Although, these lectures did garner some critical acclaim he was drawn back to the publishing word in 1894 and once again became the managing editor of *Current Literature*. From there he joined *The Ladies Home Journal* as managing editor and subsequently was asked to be the editor of *The Saturday Evening Post* after it was purchased by Curtis Publishing. He went on to write, in what my opinion are, some of the all-time best self-help/motivation books. He was involved in national political, civic groups, and had his own publishing company. His endeavors were always centered on improving the lives of others. The following articles, published in 1923, were his final published thoughts on education (he died in 1928 at the age of 64).

You may find, as I did, that many of his critiques of the education system of his day and his proposed solutions are applicable in today's world.

Rod Mann

TABLE OF CONTENTS

What's the Matter with Education	1
Educating for Seven Lives	8
Modeling Education on Genius	15
Mental Trainina: A Remedu for Education	23

WHAT'S THE MATTER WITH EDUCATION

BY WILLIAM GEORGE JORDAN, MARCH 1923

OMETIME in the years of the future we shall look back on the education system of the twentieth century with the same feeling of revulsion as we now regard the superstitions of the Middle Ages. These are hard words but they are calmly and deliberately chosen. They would be insanely foolish and wantonly unjust if not substantiated by proof. They would be incendiary, useless and dangerously unsettling were no better way provided. There *is* a better way, there is a new model.

The failure of education is not limited to America; it extends over the whole civilized world. The most vital problem before humanity today is a true system of education, for it is only as we train individuals and peoples to think, to use their minds and all their other powers to their highest efficiency that we shall find any adequate solution of our other problems, mental, moral, social, political, economic and industrial. We are failing miserably to solve them today because we have not been able to bring the trained minds of a trained people to bear upon them. We have been relying on the trained minds of a few leaders to carry and control the mass.

This is a deeply personal question to every individual. It determines the character of the world in which he lives, his own living and that of his children and all those dear to him. We are all going through life on but a small percentage of the mental powers that should be ours. Even our senses, through which all the raw material of thought enters the mind, are not only absolutely untrained but actually weak, dull, drugged and deadened. How can we think, remember, judge, reason and imagine with clearness and force when the very impressions upon which the mind works are blurred, confused and imperfect? How can we expect to have clear expression unless we begin with clear impression? There is not one single power, faculty, process or quality of the mind that is trained and developed by our present system of education. Our powers are not merely untrained—they are positively mistrained.

For centuries our ablest thinkers have criticized and condemned the process of education. The severe criticisms written hundreds of years ago are as apt, pertinent and up-to-date as though they had just appeared in this morning's paper. Swedenborg¹, over two centuries ago, said: "As the strength of a man's body depends upon his digestive powers and not on the size of his stomach, so also it is with the mind of man. It is not the cramming of his mental stomach, of his memory, with all sorts of knowledge that makes him an intelligent man and a rational man, but it is his mode of digesting his knowledge." James A. Froude² said: "To cram a man's mind with infinite names of things which he never handled, places he never saw or will see, statements of fact which he cannot possibly understand and must remain merely words to

Emanuel Swedenborg (January 29, 1688 – March 29, 1772) was a Swedish scientist, philosopher, Christian mystic and theologian. Swedenborg had a prolific career as an inventor and scientist before embarking on path of spiritual studies and writings.

² **James Anthony Froude** (23 April 1818–20 October 1894) was an English historian, novelist, biographer, and editor of Fraser's Magazine (a general and literary journal published in London from 1830 to 1882).

him—this, in my opinion, is like loading his stomach with marbles." These are but typical of what hundreds of thinkers have said through the centuries, yet the degenerating process goes on, not only unchecked, but intensified. It is worse, because we are giving more.

While the evil of the system is recognized in varying degrees we have failed to change it because we have not perfectly diagnosed the nature and seat of the disease. We have over-emphasized details not seen the problem as a whole. We have been treating symptoms not discovering the basic cause. We have ever assumed that somehow, despite its failings, it was sound organically, right in principle. We have ever assumed that if we cut out the cramming, secured a higher grade of teachers, divorced it from politics, lengthened or shortened the course, changed the method of teaching this or that study, by introducing new studies or curtailing old ones, by some patching, tinkering or modifying, we could make the machine run beautifully. We have had countless wise and sane educational suggestions, excellent in themselves, yet they have failed to produce expected results. It has been as hopeless as trying to graft a living shoot on an artificial plant.

We have not had the courage to challenge the basic theory of education, the very foundation principle of the colossal, complicated and antiquated model itself. We have had much destructive criticism of details, but not the clear vision of the intrinsic and organic weakness of the present model and that constructive criticism which would set forth the general lines of a new model in accord with which our system of today could gradually, effectively and progressively be remodeled. Unless we can see and realize the real cause of the failure, we can never transform that failure into success. This one fundamental weakness of our educational system is that it is erected on the rotten foundation of a false theory. All the evils and failings of education in the elementary school, the high school and the college, whether in what it does or in what it leaves undone is directly traceable to its hopelessly wrong basic error in principle. The theory of education, not as we get it from the ideals of educators but as it is evidenced in every detail of the system as it actually exists today, can be given in a single sentence:

Education believes that by forcing a certain amount of knowledge, principally by means of textbooks, into the minds of children, that somehow in the divine mystery of mental processes this knowledge will not only be retained, but the mind of the individual will be exercised, trained and developed.

Education makes the acquiring of knowledge the main effort and training the mind a byproduct. She does not prepare the mind for learning nor directly attempt to train mental powers. The true method is diametrically opposed to this. It makes the training and exercising of every power process, faculty or quality of mind the first and supreme aim, and the acquiring of knowledge secondary. The trained mind absorbs knowledge, acquires and retains it, but mere knowledge does not give a trained mind.

Suppose a gardener were to take a plot of ground, and, without turning up the soil, preparing it or fertilizing it or doing anything to put it in good condition he were to plant it with seed of all kinds, covering every inch of the plot. Suppose that he then said: "This process will of itself enrich the soil and will produce beautiful flowers," we should think he had suddenly lost his reason. Because he did not first care for the soil and prepare it for the seed we would know that

WHAT'S THE MATTER WITH EDUCATION

because of his wrong method he would accomplish neither of his claims, he would neither enrich the soil nor produce fine flowers, the soil would be unimproved and the plants poor, stunted, scrawny failures. Such a theory is not a whit more senseless and imbecile than the theory of our educational system.

The theory of training the mind first and making knowledge secondary, because it is right and sound as a principle gives both mental power and knowledge. Education, because of her wrong principle, gives neither. She fails in both. The knowledge rammed into the mind of a child is neither assimilated nor retained and the mind instead of being quickened and rendered live, active and alert is actually chloroformed, dulled and deadened by stuffing and over-loading it with what it cannot digest.

The new ideal making the exercise of the whole mind its first purpose would incidentally give more real vital brain-building knowledge than the encyclopedic mess given today. It would be useful, usable knowledge, understood and digested, that would feed and nourish the powers of the mind, stimulate them, call forth their activities. It would be such knowledge first as would illuminate for the child the life around it, that would interpret it and be constantly used in his everyday living and would lead the child to clearer thinking and greater wisdom.

This direct and positive reversal of our present educational theory would transform education. It would substitute a right way for a wrong way, a natural method and process for one that is arbitrary and artificial. It would change the ideals, the attitude, the atmosphere, the spirit and method of teaching. Education would be a joy to the child and to the older student instead of a long, dreary, painful process. What was learned would at once become part of one's thinking and would be a constant inspiration throughout the whole later life of the individual. He would carry into business and all of the other phases and activities of his living the principles and powers in which he had been trained. With our present system—except for what we have learned of reading, writing and arithmetic—we put practically all our education behind us, on passing our final examinations, as if it were a long spell of sickness we were seeking to forget.

We have charged education first with failure to give knowledge that is retained. The proof of the justness and fairness of this charge is simple. From our earliest school years we have had constantly dinned into our ears the "value" of what we were learning. Under the hypnotic spell of constant reiteration we somehow believed that in some occult way it must be true but we could not know it was true. At our college graduation we heard something like this: "Gentlemen, you are now leaving these classic halls of learning, hallowed with memories and associations that will be forever dear to you. You have acquired knowledge that will be of great value to you in the battle of life. Full panoplied³ with wisdom, with high ideals and clear vision, with trained minds and conscious power you are now prepared to enter on your life-work."

³ **Panoply** 1576, from Gk. panoplia "complete suit of armor," from pan- "all" + hopla (pl.) "arms" of a hoplites ("heavily armed soldier"). Originally fig., of "spiritual armor," etc. (allusion to Eph. vi); non-armorial sense of "any splendid array" first recorded 1829. *Online Etymology Dictionary*. Douglas Harper, Historian. 31 Aug. 2011. Dictionary.com

This is sheer buncombe⁴ that would be humorous if it were not tragic. There is no one of these statements that is not absolutely false to the fact. We have been fooled and duped as certainly and thoroughly as if it were all done with direct conscious intent. Hardly has a student completed any textbook or any study, hardly has two weeks elapsed before he has to cram on it anew to get a superficial, temporary veneer of knowledge to carry him through an examination. This vaunted knowledge which was to be "of great value in the battle of life" cannot stand the strain of a two weeks evaporation. A year or two later the student could not get a ten percent marking if re-examined.

Education knows this to be true. Every teacher and professor knows it to be true. Every student vaguely realizes it and yet the same ghastly farce goes on, year after year, with millions of children in countless thousands of schools. We have sold the birthright of our golden years of possibility for a mess of undigested facts, unassimilated shreds of information, distorted perceptions, confused and unrelated ideas and vague memories that education irreverently calls "knowledge."

The one great proof of the indestructibility of the human mind is that it somehow survives its education. When we go out into the world we manage to get along somehow; we turn as best we can to the natural use of the powers of the mind, but we are sadly handicapped because we have never been taught how to train them or develop them. What we are does not measure up to what we are capable of being or what we should be. If we succeed in life, it is in spite of our education, not because of it.

As to the boast of Education that she trains the mind, this is as empty and false as her claim to give lasting knowledge. We have blindly trusted her promises; we have paid her price in years of effort but she has not delivered the goods. She not only does not do this but it would be impossible for her to do it by her present methods.

Does she train the senses? The kindergarten goes a few steps when it is necessary to go leagues. Does she train consciously and directly the student's perception, so that it is easy, rapid, comprehensive, certain, efficient? Does she train his observation so that he may think properly of what he sees and hears and make his own instant deductions? Does she train his reasoning so that he may think out clearly and soundly the problems of his life and the manifold impressions that come to him? Does she train his memory for faces, for names, for dates, for locations, for events? Does she train his judgment, his will, his self-control? Does she directly exercise his imagination, train it and show him how he may train it still further and keep it under the control of will and guided by reason?

Does she give him an appreciation of the good, the beautiful and the true and develop in him a taste for the finest, a love for the best? Does she give him a strong virile vocabulary in his native tongue, ever at his control, with knowledge of how to increase and strengthen it? Does she thrill the individual with the vision of her possibility, start his mind tingling and aglow with the joy of his having a mind whose weakness he can transform and whose strength he can increase

4

⁴ **Buncombe** -n 1. empty talk; nonsense 2. *chiefly* (US) empty or insincere speechmaking by a politician to please voters or gain publicity

WHAT'S THE MATTER WITH EDUCATION

because he knows "how," because he has had every mental muscle massaged by exercises that have made them supple, instantly and instinctively responsive to need? Does she exercise him in thoroughness, accuracy and rapidity in mental processes and in the performance of every task that his hand touches? Does she train him in clear consecutive thinking? Does she train his mind, along the line of principle, so that he can apply it in concentration to any subject at will, so that he is a better workman, a better farmer, a better business man, a better scientist, a better citizen, better in any line and most important of all—better as a whole man?

The answer to every one of these questions is "*No*." What then becomes of the constant claim of Education that she trains the mind?

One instance may be given that is typical of the whole system of education. A child is told to learn a verse of six lines or so, but he is never told "how" to learn them. Left to himself, he singsongs the lines aloud, over and over, with no thought of their meaning and relation, until they make a sufficient impression to last until the next day when he is "heard." Because the lines are not taken into the mind in the right way they are not long retained nor is the mind itself trained. A second verse, and all succeeding verses, is learned with equal difficulty. There is no increment of power, no mental growth. So is it in every study. A child finds each new class as difficult as the one he left, showing that the mind itself has acquired no fresh, keen, cutting edge. We do not learn the right way by mere doing; we must be trained and exercised in the right way. We all breathe and we all walk, but few be they that breathe and walk correctly.

When we ask Education why she forces young boys and girls through algebra, geometry, trigonometry and higher mathematics, which most of them detest and which 95 percent will never use and which the five percent or so could get better as part of a professional course, she smiles in a superior, patronizing way and says: "I give them these to develop their powers of reasoning." If Education really believes this—and the fallacy of this claim can be exploded in a dozen ways—why, when the student has completed his course in mathematics, does she not examine him in reasoning? Imagine a physician having administered medicine to allay a fever being perfectly satisfied with the fact that the patient had taken the dose and later making no temperature test to see if the fever has been allayed. Education is so obsessed with her fetish worship of the power of mere knowledge that she makes no test for effects. She is satisfied if an examination reveals that a certain percentage of her mathematics medicine still remains in the system.

We decry forced feeding in our prisons, why do we tolerate it in our schools? What would we think of setting a child at a table and forcing him under fear of punishment to "eat everything on its plate" for four or five hours of continuous feeding a day, day after day for years? It would seem inhuman cruelty. Nature would revolt. Society and the law would suppress it. It would in reality however be no worse than the enforced mental feeding of our schools. Children are today over-fed and under-nourished. They may grow mentally fat but not mentally strong. Physical food is of value to the body only as it is digested. What remains unassimilated, acts as a poison on the body, enervating, dulling and deadening physical processes. Mental food is of value only as it is digested. The vast mass of what the mind cannot digest acts as a mental poison, clogging, dulling, drugging and deadening thinking and all other mental processes.

In education, the child, it is true, is often told to use his reasoning, his observation, his concentration, his imagination or some other power but he is never exercised in using them nor trained in "how" to use them. The child does not even comprehend the meaning of the terms. They are but mere words that he cannot translate into any clear idea.

The public school system of America costs the staggering sum of over a thousand million dollars a year. This is what this education takes, what does it give? The sole test of this is—results. We care nothing for the earnestness of Education, her intent, her purpose, her loyal teachers, what she claims to do or what she tries to do, the one test is—results. What does she give the boyar girl who has passed through her courses and fulfilled her requirements? In what respect does she prepare them for life? To what degree does she train their minds? Education "examines" millions, let the millions now turn and "examine" Education, question her as to how she has acquitted herself of her sacred trusteeship.

Over a million children graduate every year from the elementary schools of the country, ready to enter high school. For the greater part of this vast army, their school days are now ended and they must now face their life problems and earn their own livings. They have given the best years of their lives, their formative years to Education, what has she given to them? A few questions recently asked by the writer are worth restating here. They are vital, fair, honest questions. They seek to determine what *one* single power, faculty, quality or process is common to these children or even to a majority of them. Aside from the ability to read, write and cipher in a way, what do they possess in common as the results of eight years of study? Pause a moment after each question, think, and then answer it for yourself. It is a most serious questionnaire for every parent in the land.

Can they breathe, sit, stand, walk or run correctly? Have their senses been trained and developed? Can they add up a column of figures, rapidly, accurately and with certainty? Can they write the simplest letter, properly penned, spelled and punctuated, with a few ideas, properly expressed? Can they spell and define the simple everyday words? Can they work out simple problems in addition, subtraction, multiplication and division, mentally? Can they read aloud pleasingly, well and with confidence? Can they speak the English language correctly? Have they a love of reading? Have they a hunger for knowledge? Have they ideals, aims or purposes worthwhile? Has their character been developed? Do they articulate clearly? Have their memories for faces, names or dates been trained? Have they developed powers of observation? Have they a sense of their duties and responsibilities as citizens? Have they a highly developed moral sense? Do they know enough about books to enable them to discover knowledge for themselves? Have they pleasing manners, courtesy and consideration? Have they a sense of duty and responsibility? Has their appreciation of the fine and the beautiful been exercised and developed? Have they initiative? Have they power of concentration? Have they self-control developed or increased by their education? Have they minds quick to take in new ideas?

These are but typical of some of the elementary things that education should give. The one answer to all these questions so far as they apply to a common power or quality as applied to the children as a whole is "*No*." What can education answer to this?

WHAT'S THE MATTER WITH EDUCATION

The failure is not due to the teachers, it is the fault of the system. Even if we had in the schools of any great city, the best teachers on earth they could do little or nothing to better conditions. The system would force them to get a textbook into a child's mind in so many weeks, with every moment of the time divided, assigned, scheduled like a factory to produce a certain amount in a given time, to jam and cram a fixed amount of knowledge in the brain of the child and most of which is useless to it and unused by it, no teacher has time for real training. If she tried it she would probably be called down or fired for dislocating the machinery.

The high schools complain of the poor material passed on to them by the elementary schools; the college protests against the poor brand of brains it receives. Both elementary and high schools complain of the pressure forced on them by the demands of college entrance examinations and so the vicious circle continues. The failure of education is due not to anyone of these but to all three, they are alike in that they are based on the same false theory. Scattered over the country we have many privately owned schools, headed by clear-minded, able, zealous men and women working out educational problems on big, sane, natural lines, in accord with a definite ideal and method. They are seeking to train rather than merely to "educate" but even they are limited and hampered because their curriculum is forced to conform to college requirements for entrance.

In this presentation of the failure of education we have been forced to limit ourselves to its purely intellectual side, its relation to knowledge gathered from text books. But even if this succeeded, it would be but a poor inadequate preparation for life. It takes no account of the training of character, the training for citizenship and the larger duties, relations and responsibilities of the individual as will be shown in later articles in this series. With drastic cuts in our present curriculum, we can conform the present system to accord with the new ideal, the new method, the new inspiration and the new model. Great reforms are rarely started within any body or institution, they are forced on it by pressure from without. The American public and the press need first to be aroused and kindled into protest against the failure of our present education. This situation demands not mere talk, but action.

A little over a century and a half ago Laurence Sterne⁵ wrote in *Tristram Shandy*⁶: "I am convinced, Yorick," continued my father, half-reading, half-discoursing, "that there is a Northwest Passage to the intellectual world, and that the soul of man has shorter ways of going to work, in furnishing itself with knowledge and instruction than we generally take with it." There is a Northwest Passage. It will be found in a sane, practical system of education that will train men for the seven varieties of life they all live, a system based on the finest working of mind-that is genius. It means a new idea, a new ideal, a new inspiration, a new method and a new model.

⁵ Laurence Sterne (24 November 1713 – 18 March 1768) was an Anglo-Irish novelist and ntal an Anglican clergyman. He is best known for his novels The Life and Opinions of Tristram Shandy, Gentleman, and A Sentime-Journey Through France and Italy; but he also published many sermons, wrote memoirs, and was involved in local politics.

⁶ **Tristram Shandy** is a fictitious autobiography that was published in 9 volumes over the course of 10 years beginning in 1759.

EDUCATING FOR SEVEN LIVES

BY WILLIAM GEORGE JORDAN, APRIL 1923

AN does not live one life only in this world; he lives seven. He lives a physical life, a mental life, a moral and ethical life, a social life, a civic life, an aesthetic and emotional life, and a spiritual life. These seven lives constitute all there is to living. They cover every possible relation of the individual-to himself, to those around him, to the world and to his God.

What of the vocational life? This is but a blending of two or more of these lives into a specialized activity. What of man's rest, leisure, recreation? This is not a life in itself. It means merely shifting the emphasis of intensity from some one of these lives to some other as when a man tired by the mental strain of business turns to the physical exercise of golf, the aesthetic pleasure of music or the drama, or the delights of the social life. As all men and women live all these lives, in varying degrees of intensity, and as every child begins early to live them, should not Education train the individual in each of them that he may live all of them at his best?

Education concentrates on the mental and fails hopelessly even in this one. The intellectual life is only a part of our living. We are all controlled more by our sentiments, feelings, emotions, affections and passions than by clear, calm, cold reason; therefore they too should be trained.

To see how miserable has been the failure of education, let us try a bold experiment. Let us forget absolutely that the world has now or ever has had any system of education. Suppose then, for the first time in human history, the brilliant idea occurred to the mind of some man that as we have to send our boys and girls out into life, to meet the problems of life and living, it would be a good thing to have some kind of public institutions to prepare them and to train them. This proposed process he would call "education."

Free as a lark from any hampering thought of tradition, authority or precedent, and not even concerned at first with problems of how it could be done, he would begin to expand his great idea, to make blue-prints of his new invention. He would dream out on paper his vision of what should be his ideal. He would think over his own mistakes and blunderings and the qualities, powers and abilities he needed and which he should have had, if "education" had been known when he was a boy.

His thought would turn lovingly and solicitously to the future of his boy and his girl, the children so dear to him. What was the training and preparation that would inspire and guide them to lead lives that would be best for themselves and for the world. Then he would write boldly at the top of his first sheet the heading: "What I Expect Education to Do for My Boy and My Girl."

Physical. They should have strong healthy bodies which they had been trained to respect, to nurture and to control. They should breathe, sit, stand, walk, run and eat correctly. They should know how the simple laws of hygiene and the simple physical exercises that would keep them well and strong under normal conditions.

EDUCATING FOR SEVEN LIVES

Mental. They should have each of their senses trained to highest efficiency. Their perception, observation, memories, judgment, imagination, reasoning, concentration, will, should be continuously and progressively exercised and trained. They should be trained to love their native language and be so exercised in it that they would think in it and speak it with clearness and force. They should be trained to order, thoroughness, accuracy and rapidity in thoughts and act. They should be exercised in conversation and every phase of self-expression. Their minds should be trained to be ready on the instant, not the next day.

Moral and Ethical. They should have a clear, simple, sound working code, based on honor, right, truth and justice. They should be so trained that living it daily would become a simple, natural automatic part of their living.

Social. They should be trained, by conscious exercise that would later become unconscious expression, in all the social conventions, civilities, and courtesies that would make them agreeable, companionable and dependable.

Civic. They should be trained for citizenship in all its phases. They should know the fundamentals and broad principles of the working of the government under which tlicy live, trained to realize their duties, responsibilities and powers and be exercised in practice to meet them and to fulfill them so that they could become worthy citizens.

Aesthetic and Emotional. Their sentiments, emotions, feelings and affections should be called forth, explained, stimulated, appealed to and placed under their conscious control. They should be inspired by love and inspired to love the good, the beautiful and the true in all things. They should be trained to know, to recognize, to appreciate, and to love the beautiful in Nature, humanity, literature, music, painting, architecture, sculpture and the drama.

Spiritual. They should be trained to realize and to feel that the spiritual dominates and is superior to the material, that the universe is governed by eternal law, trained in the reverent knowledge and performance of the duties to God, trained to make the great truths of spirituality, not mere matters of belief but the very inspiration and atmosphere of their daily living.

Having set down in writing his ideal he would recall he had said nothing as to the knowledge to be acquired and he would put it thus:

"They should first be put in harmony with their immediate environment and given such knowledge as they could grasp, understand, assimilate and use, moving from this to progressively widening circles of information as their growing minds could feed on. They should have only such knowledge as they could digest and make truly their own. They should be trained specifically too in that knowledge that would enable them to know where to find out. Such a comprehensive plan of training as this would bring them in touch to a degree with all the sciences in the explanation of their environment, in the simple questions and details of everyday life. If their minds be trained thoroughly in harmony with their seven lives there need be no fear that they will not have or be able to acquire for themselves all the knowledge they could desire or assimilate." With years of such training they could approach any subject or problem with trained minds.

Having completed his outline and found it satisfying, he would then be rudely wakened by suddenly remembering that he had been misled in believing the world had no system of education. Then there would flash before him the memory of what our elementary schools, our high schools, were doing for the young. Checking up the work of Education, item by item, point by point with his own idea, he would find that she *fails consistently and completely in every single element*.

Dismayed and discouraged he might view his own plan as but a beautiful theory, utopian, visionary, impracticable, impossible. Then would come the glad glow of a real illumination. Such an education as he had outlined was not visionary, not impossible for it had been given in practically every detail in the training of the citizens of Athens, in the Golden Age of Greece, 2400 years ago!

This wondrous city, with a population about that of Akron, Ohio, in the seventy years of the life of Socrates, produced more great men, more supreme geniuses than the whole world has ever produced in any other equal period of time. The quality and powers of the citizenry, the common people, have never been approached, much less equaled, at any other place or in any other time in the history of the world. They had bodies trained to health, beauty and grace, minds keen, alert, clear and rapid in thought, unhesitating in action. They were intellectually anxious, wide-awake to new impressions, prepared and ready to challenge for themselves any new idea before admitting it into the mind. They were so trained to love their native tongue that the common people could speak it with the ease, grace, voice and fine discrimination in the use of words of their greatest authors.

Their ear was so trained that it was far more sensitive than ours to pitch and modulation. The ability to appreciate without difficulty quarter-tones in music was common. They were trained for citizenship, for character, trained in the social refinements and graces, trained to love the good, the beautiful and the true and have them dominate their lives. Their imagination, wondrously developed, was ever controlled by reason. Their spirituality was not a thing apart; it permeated all their living. They lead free, natural, joyous, active lives, from childhood to old age. No child in old Athens ever "crept unwillingly to school."

The education for their many-sided life was one of harmonious training of body, mind, heart and spirit, raising each to its highest power and all into finest co-operation. The curriculum of this education was so simple that we would smile at it today, but its wisdom was shown in its power to appeal to every faculty and process of the mind and to prepare for the fullest, freest living. This, too, was at a time when there was not a single book in existence, and before formal studies had been invented.

With the coming in of the Sophists, who shifted the accent from training to the acquiring of knowledge, the curriculum was soon widened to some semblance of modern education. The beginning of the great change was quickly felt, the people lost their fine character, their ideals faded, the common interests and purposes languished, their moral fibre weakened, their love of the beautiful, the good and the true no longer dominated their living, freedom waned, the great men became fewer and this glorious civilization slowly dimmed and dusked into night.

EDUCATING FOR SEVEN LIVES

When the system of education in Athens made training the individual for the full rounded activities of his seven lives its supreme aim and purpose, Athens reached her Golden Age, her zenith. She was the glory of the whole world of her time and she left to all the ages to come an undying heritage of influence and inspiration. When she changed her model by reversing her ideals, making the acquiring of knowledge her supreme aim and purpose and the training of the mind incidental and secondary, the glory of her civilization declined. The new model for education that we are seeking to present in this series, though worked out individually and independently, with no thought of Athens as a guide or inspiration, is in perfect harmony with the spirit of her training in the sun-lit mid-day of her greatest splendor and power. The education of today is in harmony with that of Athens in her period of decline. Which is the better model, Mental Training or Education?

Let those who doubt the possibility of realizing the vision of the new education we have outlined, who may say "it cannot be done" be silenced by the proof that, in its main lines it *has* been done. Their civilization differed from ours, their spirituality differed, their ideas and ideals and their living differed, but the *principles* that made their civilization great will make ours great. We do not need to do what they did in the way they did it but to cultivate the same spirit, the same attitude. We do not need to drink from their cup, but to dip our own cup into the fresh, living waters of the same fountain of inspiration.

We do not need to teach the Greek language, but to put into our own wondrous English language the love and spirit the Athenians put into their native tongue. We can have an education and a civilization all our own, a training that will prepare our children for living today, on the same broad base as did the Greeks of old. They never formulated the sevenfold view of life, perhaps even never thought of it, but we can convert this ideal into an actuality in the same free, inspired way that the ancient Greeks created an education in accord with their vision. We can make it a new great reality, transformed from a vision into a great pulsing force in our living.

Mental training has a clearly defined program—training for seven lives. It has a clearly defined model—training in harmony with Nature's method in developing genius. This new ideal and revelation of method and process will be set forth in the next article in this series: "Modeling Education on Genius." It is based on a supreme faith in the educability of the human mind. It believes that the method by which Nature makes her great successes is not only good enough for us, that it is not only a right and a proper method, but that this method of Nature is the only true one. Education, paradoxic and strange as it may seem, does not believe in the educability of the human mind. If she did she would not find her supreme aim and go in merely "storing the mind with knowledge."

Man is not put into the world as a finished product, of a predetermined limitation of capacity and development. He is not branded or stamped like a jug with its limit, as "one-gallon" or "five-gallon." There are no men thus predetermined as "one-talent" men or "two-talent" or "five-talent." If man wishes to thus limit himself it is he who does it, not Nature. We know the potentialities of no child that was ever born. We arrogate much to our own ignorance when we thus seek to fix individual limits. The biographies of the world's great ones have told this story thousands of times. Nature has been speaking to man the same message in countless instances

through the ages, but he has not heard, or if he has heard he has not comprehended. It is this finer message of Nature that mental training seeks to translate for man into a new revelation of the glorious possibilities of a new education, a new inspiration, a new model.

The question of how we can change our present system is too big to discuss here. The immediate question is not "how can it be done?" but "is it worth doing?"

Would it be good for the individual and for the world if it could be done? Is it the kind of education you would wish your children to have? Is it the kind of education you would want for yourself, if you could go back to school? Would it not have trained you in powers wherein you are weak today and which you have resignedly accepted in the belief that you "were born so and must so remain?" Would it not give you a broad, full, many-sided life that you do not have today? Would it not give you control of your mind and its powers? Could you imagine the world, after a generation of such training, going back to the old education, with its dullness and deadness, its cramming, its barren results, its fruitless effort and its untrained minds? Would it be a big worth-while thing to train the individual to live his seven lives at their fullest and best?

This new system is not proposed as an addition to our present one, but as a substitute for it. It would not only quicken the mind but would *build the brain itself* to higher powers, increasing the number of cells in any area and create them where none exist. Our leading scientists declare all this possible by proper exercises in training.

Elmer Gates⁷, of Chevy Chase, Maryland, trained dogs during the first year of their life to discriminate hundreds of the pitches or wave-lengths of each of the colors of the spectrum, to differentiate seven or eight- shades of these colors and of each one of the hues of these colors. In this training the dogs developed a mental power and ability along this line that no other dogs of this breed ever possessed. That this training actually produced increased cell-development in the cortex of the brain was shown by a subsequent autopsy. This revealed a far greater number of *well-developed* cells, as compared with small and immature cells, in the "seeing areas" of the brain, than other dogs of this species possessed.

A child under two years of age had been given by Dr. Gates a six months' training in the discrimination of temperature and touch differences. The child later died of scarlet fever and in the brain areas of these senses were found over twenty-four times the number of large and fully developed cells, as compared with small, immature and mere beginnings of cells. He further says: "I have trained four generations of guinea-pigs in the extraordinary use of the visual faculty and their offspring of the fifth generation were born with a greater number of well-developed cells in the seeing areas of the cortex than other guinea-pigs not thus trained."

These experiments prove that more and better brains, and more and more mental ability can by proper mental training be given to animals, that new characteristics can be acquired, and that despite what Weissman⁸ and other scientists have *claimed these acquired characteristics can be*

⁷ Elmer R. Gates: See <u>www.ElmerGates.com</u> for additional information on this fascinating inventor/mental researcher.

⁸ Friedrich Leopold August Weissman (Germany 1834, 1914) was a notable 19th century evolutionary scientist.

EDUCATING FOR SEVEN LIVES

inherited. The fact that inheritance of these newly acquired structures implies that either new cells have actually been created or that new organic tissue has been created within the constitution of already-existing cells.

True mental training, making all the cells of the brain more keenly active and alert because directly nourished and strengthened by *conscious* exercise, will perform seeming miracles in the development of individuals. The brain cells become larger because they have been stimulated to more complex internal structures and a more complex chemical constitution. The cells become larger also because of a more complex development of associative fibres and fibre tracts. This means that in mental training there is not only a building up of separate memory cells but an intensifying, vivifying, vitalizing and energizing of new lines of association between them. Mental training is thus brain-building. It means producing a better machine to turn out a finer grade of goods, and by making a finer grade of goods still further perfect the machine.

We do not inherit from the education of today. In some new method which consciously and consistently builds up the brain itself, changes its tissues and increases the number of cells, by direct exercise, may we not possibly be able not merely to increase the brain power of one generation but to pass this power directly to the generation that is to come? Whatever we may or may not do for posterity, there is no question about the marvels of development we can create in the present generation by proper training and exercise.

MODELING EDUCATION ON GENIUS

BY WILLIAM GEORGE JORDAN, 1923



HE world's most urgent need is not a new crop of geniuses. We could get along very comfortably even if we did not have a new great book, a new marvelous discovery, a new revolutionary invention, or a new superb painting or piece of sculpture for a hundred years to come. The great geniuses of the past still live in their works. They

still speak their undying messages of revelation, beauty, truth, inspiration and wisdom. Though we have listened to them we have learned but a small part of their inspiring quality. We have not even begun to exhaust the genius of either past or present.

What the world *does* need most is a better, finer, broader type of average men and women, with healthy bodies, sound, trained minds, spiritually alive to the bigness of their individual possibilities and the greatness of real living. We need men and women trained to think, not merely to think they think. Thomas A. Edison declares that "most men never amount to much because they don't *think*." Prof. William James said that the average man uses only about one tenth of his brain. Dr. Elmer Gates⁹ claims that under usual circumstances and education, children develop less than ten per cent of the cells in their brain areas.

This is a ghastly commentary on our educational system. There are about 24,000,000 children in the public elementary, secondary and high schools of the United States. The system is maintained at a cost of over a thousand million dollars a year. When this vast army of children shall have completed their education, not a single one of them will, as the result of the process, have been trained to think. Not one of them will have the powers and faculties of their minds directly and consciously exercised, developed, and placed under their individual control.

We need to train the children for the seven lives they must live: the physical, the mental, the moral and ethical, the social, civic, the aesthetic and emotional, and the spiritual. Education is cold, soulless, uninspired and uninspiring. It is merely a complicated unnatural process, based on supreme faith in its curriculum and its methods. It never tests to determine if it is developing powers or training the mind, but merely examines to determine the percentage of its knowledge that remains unevaporated.

We need a new ideal, a new inspiration, a new philosophy of education. This will be found in Genius. It will not be revealed by the study of one genius or of one type but only by discovering the qualities or powers common to all genius. We usually consider genius as far removed from ourselves as the North Star. We are so conscious of the differences between us and the world's greatest minds that we fail to realize the qualities that are common to genius and to all men. Approaching genius from this near side, we may have a new revelation.

⁹ Elmer Gates was a virtuoso inventor who's better known inventions include the foam fire extinguisher, an improved electric iron, a climate-controlling air conditioner, and the educational toy "Box and Blocks." Despite his extraordinary output as an inventor, Gates saw himself as a psychologist. He pursued invention primarily to study the processes of the mind while it engaged in its best work. See http://www.elmergates.com/

The conventional idea is that genius is wild, erratic, and defiant of law. If this were true the greatest lights of the ages, the men who have guided and inspired the world, would be Nature's failures or Nature's rebels. This is unbelievable. Whatever a genius does along the line of his perfected power he does with the maximum of effect and the minimum expense of mental energy. He represents the straight line in thinking, the shortest distance between a perfect impression and a perfect expression. He does the best thing in the best way, putting into it not only the best of his mind but the best of his whole nature. Genius instead of being wild, erratic and in defiance of law, should be defined as simply the perfect unconscious obedience to the law for a given effect. It is the incarnate revelation to man of the perfect working of mind in some line. Therefore genius should be our model.

A four-leafed clover might be called a genius among clovers, because of its occasionalness, but under the microscope every three-leafed clover shows the germ of the fourth leaf. The four-leafed clover is a clover that has made good—that's all. A genius is merely a man who has made good—that's all. The genius merely shows on a colossal scale the flowering of qualities, faculties and powers that exist in rudiment or in miniature in all men. The difference is not of kind, but of degree. From the feeblest germ of ability in any line, up through aptness, cleverness, great cleverness, talent, to the supreme manifestation of unquestioned genius, no new process enters, none different in kind from what we all use. The difference is only in intensity, in perfection, in degree of development.

In considering genius as a model for education we must guard carefully against a possible misconception. It is not believed, in this view, that all men are born with equal minds or equal possibilities or that by any training in the world they can be made equal. This new model is not a process that would take an average child, put it through a certain course for years and turn it out a genius. It is believed, however, that if we exercise the whole mind, in the spirit and in accord with the principles which the genius applies with supreme concentration and intensity along one line of power, our minds will be stimulated, enriched, broadened, and raised to their maximum of power.

We all have latent powers and special aptness of some kind, of which we may be unconscious, or which if we do know we do not train and cultivate. If the average man fails in life, or lacks any special power, if he cannot remember names or faces, if he has no imagination, no initiative or resourcefulness, if he has no taste for literature, art or music, if he has no appreciation of beauty or if he lacks in any way, he says, "I am as God made me." If he succeeds he proudly proclaims himself "a self-made man." He would not have these mental deficiencies if the education of today were what it should be.

Geniuses do not thus surrender. They made themselves great through the untiring energy by which they overcame and triumphed. Many of them had in the beginning no more power than that of ordinary men, till some chance word, some book, some suggestion, some inspiration, revealed a slant or liking, that determined their lives, that roused and kindled all their energies, and developed their feeling into a real love.

Genius is not a single essence, gift or power by which a Napoleon could have made himself a Mozart, a Galileo, a Michelangelo or an Edison. Genius is not exchangeable into a different type.

MODELING EDUCATION ON GENIUS

It is a blend or combination that determines and limits the slant of the genius. The basis of the genius is not initially mental, but spiritual. It is a strong dominating emotion, a great, intense, glowing, pervading love. It may be love of beauty, of Nature, of truth, of humanity, of spirituality, of mechanics, of language, of justice, of freedom or of some other of the big impelling things of life. The love of Nature may make one man a Wordsworth, another a Ruskin, a Linnaeus, a Thoreau, a Burroughs, a Darwin, a Burbank or some great painter like Corot, but it would not make a Lincoln or a Luther, inspired not by love of Nature but by love of humanity.

From such a great love comes a supreme desire, aim or purpose, inspiring devotion, enthusiasm, power of attention, and concentration, generating tireless energy, continuity, persistent labor, determination and will, stimulating self-confidence, self-reliance and sensitiveness to new impressions from every source. These glowing forces acting on developed senses, memories, observation, judgment, imagination, reasoning and clear thinking raise them all to higher powers, individuality asserts itself and the creative power dawns and finally brightens into the sunburst.

This is the process of genius reduced to its lowest terms. The world proclaims it a miracle, a divine mystery, but the genius is not formed in a different mould from us. The mechanism of his brain is the same as ours. The course of his thought and action are the same. The difference is only in degree of activity and development. He has enriched the soil and cultivated it where we may have only neglected fields run to weeds.

Education fails with the average human being; it fails even more with the exceptional. The geniuses and the men of talent or of signal ability, have a strength of mind, a fineness and an individuality that refuses to be pressed, like soft pulp, into an artificial mould. A whole book could be written on the great ones who were failures, dolts, dunces, or rebels at school. Among them may be mentioned: Milton, Wordsworth, Hawthorne, Darwin, Spencer, Huxley, Newton, Dryden, Byron, Thackeray, Heine, Balzac, Keats, Shelley, Napoleon, Lowell, Wellington, Longfellow, Voltaire, Mark Twain, Scott, James Fennimore Cooper, Henry Ward Beecher, Bacon, Locke, Hobbes, Gray, Goldsmith, Dr. Johnson, Gibbon, George Bernard Shaw, Stevenson and a host of others.

Some of the others had little or no education, except what they gave themselves, men of power and individuality like Lincoln, Franklin, Farragut, Dickens, Pope, Burns, Carnegie and Livingstone. Babbage, one of the world's greatest mathematicians, was said to be "the stupidest boy in the whole school in arithmetic." Nearly every one of the mathematical prodigies, with a genius for marvelous mental calculation lost all of this power when trained along the line of orthodox education.

How does all this apply to the 24,000,000 children in the public schools of America and to the countless millions of other children in the world? How can we model a system of education on genius? What would it mean were we to transform by changes in spirit and method our present system to accord with the new ideal?

It means a distinctly different attitude toward the child. Because genius shows that the mind develops best when it is acting with pleasure on what it loves, the things that make school life a

torture and a fear should be removed. Examinations, lessons from text-books and bad marks would be abolished. They force the child to learn by rote mere words untranslated into mental images of any kind. Under such conditions the mind cannot expand freely.

Because genius reveals the trained senses as of supreme importance, all of them should be exercised to bring only clear, vivid impressions to the mind. The kindergarten training in its simple rudimentary exercises goes a few steps where we should go leagues. Reuben Post Halleck, an authority on this subject, declares that this training should be direct, progressive and continuous until the twentieth year.

Because genius constantly seeks self-expression, constantly seeks to use what it has in its mind, constantly seeks to externalize an inner vision as an outward fact, constantly seeks to give a perfect expression to a perfect impression, we should train the children in this same, free, expanding and vitalizing process. Whether genius expresses itself in a great book, a play, a statue, a painting, a philosophy or any other of its myriad forms, the process is always the same. Education ignores this or defies it. Education means today constant crowding, jamming impressions, with no corresponding expression.

Because every genius analyzes along the line of his genius, because he seeks to discover through analysis the law or reason behind phenomena, because he then seeks to apply that law in new fields by analogy, we can assume that this is the right mental attitude, the one that brings best results, and in harmony with this should we train the children.

Because genius, whatever be its line of activity, always develops individuality, always thinks out for itself, always has intense appreciation of beauty in some form that becomes its ideal and inspiration, always develops originality, always intensifies its imagination and holds it controlled by its reason, we should train in this spirit. Because genius has initiative, courage, confidence, constructive and creative power, observation, thoroughness, judgment, fine ability to appreciate fine distinctions, we should train the children in the same spirit and seek to lead them to acquire the same powers and qualities, though in a lesser degree.

These characteristics of genius and others that might be named are common to all genius. A genius, it is true, may not manifest them in every phase of his life and activities, but they are constant factors in the genius part of his mind, its finest, sanest, healthiest best. You may say it is a far cry from genius to the average, normal child. If you think this, you are mistaken. The child, fresh from the arms of Nature, before he has been perverted by education, manifests all the powers and qualities of genius. They are in miniature, it is true; they are primitive, tentative, active, reaching out, seeking and hungering for development. It is as if Nature, in safeguarding the race, sought to give each child a fair start, a fair chance. Nature starts every child geniusward. Education, in its blind, fatuous, blundering, forces the child through a false artificial process, ignores everything we know of the human mind and its workings, and tends to stifle, dull or deaden every natural process of the mind.

To show the closeness of the analogy between the working of the mind of a child and that of genius would require many printed pages, a few high-spots must suffice. As one element of his power, every genius has an unusual sense development. The artist genius has a highly developed

MODELING EDUCATION ON GENIUS

visual sense, which keynotes his imagination and other mental powers. The great composer has a finer sense of auralizing. The sculptor genius has developed visualizing for form and an unusual tactile sense. A great surgeon has this same development of touch. A great chef, like Brillat-Savarin¹⁰, is a gustatory genius. So is it for every other form of genius. Universal genius then would have all the senses developed.

The child, before being weakened by education, uses all of its senses. Give him a rubber ball and he looks at it, smells it, puts it to his mouth to taste it, place: it near his ear to listen to it, and handles it and seeks to feel its weight on his tiny palm. A short time in school stifles the process forever.

The child constantly analyzes. It uses the great "W" words—who, why, what, when, where, which and how. These are the very words every genius uses in infinite application. He constantly desires like the genius to know the law, principle or reason governing things, and he shows this with his staccato "whys." He reasons by analogy, as the genius does. His fund of knowledge is small and inadequate; the results, therefore, are often wrong and ludicrous, but his *process* is always right.

The child uses imagination to a degree that makes us older ones marvel. The child who draws a horse on his slate puts into it imagination just as true in its essence as Michael Angelo put into his sublime frescoes. The difference is only in degree. So could the parallel of other powers be shown.

We must first arouse the child's interest if we would develop its love. Educators know well the "interest" theory. They make a mistake however when they merely seek to make a dull study interesting, as we sugar-coat a pill to induce the child to swallow it. Instead of this we should give the child knowledge that appeals to it and exercise its mind on what is intrinsically interesting. We should train it in appreciation of beauty in all its phases. Let us fill its mind with the beauty of color and of form, of the world around it, the beauty, the wonder, the romance that makes the senses keener and the imagination tingle when we learn the secrets of the flowers, the trees, the waters, the clouds, the hills, the mountains, and the star sprinkled sky. In this spirit, which is that of genius, the child's mind and all its other powers would be wakened in a way that would be impossible from mere dry facts from dull text-books.

No accumulation of mere facts ever makes one wise. It is in connecting and correlating these facts in new lines of reason, imagination and association. Thinking, itself, is merely seeing things in relation. The "how" of this process is one of the revelations of genius.

Wherever we truly train a sense and exercise the individual consciously to analyze the impression we stimulate the observation, intensify the memory of that sense, appeal to imagination, test by reason and affect the whole process of thinking. As in genius the increased love in some line calls forth energy, continuity, patience and the other forces that mould the genius; so would it be in a lesser degree in our schools with average children. What genius does often without consciousness of process, we would exercise with intense consciousness. The

Jean Anthelme Brillat-Savarin (1755-1826) was a French lawyer and politician. He gained fame as an epicure and gastronome.

range of exercise would cover all the seven lives of the individual. The detail of the exercises or even the merest outline of a school program cannot, of course, be given here.

The common conception of genius is that it is a marvelous innate power with which they are divinely endowed, and all that genius has to do is to radiate it. Most geniuses started with but a feeble germ of ability that through long years of concentration, devotion, heroic struggle and effort, pain and sorrow, blood and sweat, they finally evolved into real greatness. It is not a compliment but an ungrateful insult to say to them, when they have not only mastered and perfected their genius but accomplished the harder task of forcing the world to listen to them and finally to recognize them: "You were born so."

Genius, like the average man, has two creators—his God and himself. The second creator develops and perfects what the first has begun. Aeschylus¹¹ wrote his first tragedy at twenty-five, but despite all his effort did not win a prize till he was forty-one. Byron's¹² early poems were the veriest¹³ trash. Schliemann¹⁴, the great explorer and archaeologist, had an abominable memory. He determined to make it strong, and finally succeeded so that he used to learn a new language every six months and could speak, read and write it fluently. Macaulay¹⁵ had a good memory; he made it a miracle by his own methods. Hawthorne¹⁶ repudiated his first book and would not permit it to be reprinted.

Every great orator in history was a failure in the beginning. Paderewski¹⁷ was expelled from one of the great conservatories of Europe and told he could never learn to play the piano. He was seriously recommended to study the piccolo as he then could always get a job in an orchestra. Verdi wrote for twelve years and produced eighteen operas before he brought forth "Rigoletto," his first score of intrinsic merit, perhaps excepting "Ernani." Harvey¹⁸ spent nineteen years of labor to discover fully the full course of the circulation of the blood.

¹¹ **Aeschylus** (Ancient Greece; c. 525 BC - c. 456 BC) was the first of the three ancient Greek tragedians whose work has survived until modern times. He is often described as the father of tragedy.

¹² **George Gordon Byron**, 6th Baron Byron (1788 – 1824), otherwise known as Lord Bryan, was a British poet and a leading figure in the Romantic movement. He is regarded as one of the greatest British poets and remains widely read and influential.

¹³ **Veriest**: utmost, most complete

¹⁴ **Heinrich Schliemann** (1822 –1890) was a German businessman and amateur archaeologist. He is most famous for being an advocate of the historical reality of places mentioned in the works of Homer and for helping excavate Troy.

¹⁵ **Thomas Babington Macaulay**, (1800 –1859) was a British poet, historian and politician. He wrote extensively as an essayist and reviewer, and on British history. He also held political office as Secretary at War between 1839 and 1841 and Paymaster-General between 1846 and 1848. A New Times article, "<u>Lord Macaulay's Memory</u>", published 7 May 1876 provides insight into Jordan's reference. In the article it references an event that occurred with Macaulay was thirteen years old. While waiting for a carriage he read from a local paper two poems. Having never seen them again he was able to recite them word for word forty years later.

¹⁶ **Nathaniel Hawthorne** (1804 –1864) was an American novelist and short story writer. He works include *The Scarlet Letter* and *The House of Seven Gables*.

¹⁷ **Ignacy Jan Paderewski** (1860 – 1941) was a Polish pianist, composer, diplomat, politician, and the second Prime Minister of the Republic of Poland.

¹⁸ William Harvey (1578 – 1657) was an English physician who first described, completely and in detail, the systemic circulation and properties of blood being pumped to the body by the heart.

MODELING EDUCATION ON GENIUS

Henry Irving¹⁹ failed in his first appearance, and was urged by all his friends to go back to the desk and ledger. Shelley's first poem "Queen Mab" was poor stuff, flimsy and incoherent. Edison worked from 18 to 20 hours a day for seven months trying to teach a phonograph to pronounce the letter "s." We look upon Chopin as having his genius handed to him on a gold platter yet his practice at the piano was so incessant that he caused a permanent injury to his spine by sitting on a stool with his back unsupported for hours at a stretch, repeating a single bar over and over again for nearly a thousand times.

These men made themselves geniuses by their own supreme efforts, raised what might have been mere mediocrity or perhaps talent to supreme power.

What holds back most of us from fuller development is our resignation to ourselves as we are, our belief that because we do not possess a certain power that we cannot acquire it. We are under the spell of the old belief that we are born into the world with fixed limited powers with a limitation as to possibility. The biggest, finest, sanest view of life and science prove this to be false. The mentally dull may develop into a genius, the physically weak into a Sandow²⁰, the spiritually small may lead the world as a great reformer. How far we can progress we can never determine in advance, but that we can progress depends finally only on ourselves. Man is put into the world not as a mechanical music-box with three or four predestined airs but as a human violin capable of infinite music. It is in the early years of life when the mind is plastic that the process is easiest and here Education has her great opportunity.

In every phase of human thought and activity, except in education, the one that is of supreme importance, the world has consciously or sub-consciously recognized the genius model. If a man has heart trouble, assuming it is functional, not emotional, he goes to a physician, who tests it with the best instruments known to science. He tests it in relation to the perfect heart, the genius heart, that may not exist in any human. He marks it in terms of par for the genius heart. From it he learns not only diagnosis but treatment. He seeks to put the heart under study into harmony with the cardiac laws made manifest in the perfect heart.

We feel that the physical laws obeyed in the making of a Sandow appeal to all of us, apply to all. We give our children, learning to write, the best engraved models we can procure. We read to them biographies of the world's greatest men and present them as models. Artists sit at the feet of the world's masters and study their brush-strokes to improve their own. In a spiritual sense Christ is the genius of moral and spiritual law. The best Christian does not seek to do what Christ did but merely to obey the moral and spiritual laws made evident in His life and teaching.

Genius, everywhere the model—except in education.

Nature through the ages has ever been saying to man: "In the minds and work of the world's geniuses I have sought tirelessly to reveal to you the true model for your educational system. I have sent a thousand messengers and you have not listened nor heeded. I have sent millions of

¹⁹ Sir Henry Irving (1838 – 1905), was an English stage actor in the Victorian era.

²⁰ Eugen Sandow (1867 – 1925), is known as the "father of modern bodybuilding."

children into the world, all started geniusward, all speaking the same message. Why do you balk every effort of mine to help? Is it that you are blind, or deaf, or stubborn, that you will not listen, that you will not hear, that you will not do? You are cheating, with your silly, stupid system, the children out of their birthright. You are holding back the race from its rightful progress. You are making the world suffer from ills and wrongs from which it would be free if you only would teach them to think, if you would only train them to see the right, to know the right, to do the right and to live the right. How much longer will you persist in your wrong methods, your false system, in hopelessly poor results?"

Some may say: "This sounds all right. It is pretty theory, but is it practicable, feasible, possible?" We would again remind you that such an education in most of its essentials was given in Athens over twenty-four centuries ago and that today, with an even clearer vision than theirs, we could do still greater things.

Froebel²¹ found his inspiration in the study of the normal child—the natural bud. Montessori²² found hers in the defective child—the aborted bud. This new model finds its inspiration in genius—the perfect blossom. It is in perfect harmony with the other two as far as they go, but the new model absorbs all their discovery and goes further as suggesting a new education, universal in appeal, for all the peoples of the world and for all the ages.

²¹ **Friedrich Wilhelm August Fröbel** (1782 – 1852) was a German pedagogue, a student of Pestalozzi who laid the foundation for modern education based on the recognition that children have unique needs and capabilities. He developed the concept of the "kindergarten", and also coined the word now used in German and English.

²² **Maria Montessori** (1870 – 1952) was an Italian physician and educator, a noted humanitarian and devout Catholic best known for the philosophy of education which bears her name. Montessori education is characterized by an emphasis on independence, freedom within limits, and respect for a child's natural psychological development, as well as technological advancements in society.

MENTAL TRAINING: A REMEDY FOR EDUCATION

BY WILLIAM GEORGE JORDAN, JUNE 1923

HEN an educator of the unquestioned ability and high standing of Dr. Nicholas Murray Butler²³, president of Columbia University, sums up education in a sentence, his words are worthy of careful listening. He said on one occasion: "When one reflects upon the ravages which have been committed in the name of education, there is some excuse for wondering whether it would not be advantageous to agitate for compulsory illiteracy." Such an expression from the lips of a mere layman might be construed as wild and fanatic, but spoken by Dr. Butler they represent the sane, serious crystallization of the thought, observation and long experience of a clear thinker who is in a position to know. They show relentlessly that there is something intrinsically rotten in the Denmark of education.

Gladstone once said: "The most distinguished professional men bear witness, with an overwhelming authority, in favor of a course of education in which to train the mind shall be the first object, and to stock it the second."²⁴ James Beattie put the same idea in other words, when he said: "The aim of education should be to teach us rather how to think than what to think—rather to improve our minds so as to enable us to think for ourselves than to load the memory with the thoughts of other men."²⁵ Thousands of our thinkers have echoed the same thought. We have gone still further in attempting to show that because of the false theory of making knowledge of supreme and first importance and training the mind a by-product, an expected secondary result, education fails in both phases.

We have ventured to suggest a new model, a new ideal, a new inspiration, which we shall call "Mental Training," to differentiate it from the old education. This new model has three cardinal points. It would make training the mind itself, the first and supreme aim, giving as much knowledge as could be given in exercises and in conjunction with the training. It would prepare the individual for the seven lives we all must live: a physical life, a mental life, a moral and ethical life, a civic life, a social life, an aesthetic and emotional life, and a spiritual life. It would train in accord with the sprit, methods and mental processes of genius, the revelation to man of the mind working at its best. In the suggestion of genius as the model for education, there is no attempt to create genius but merely to start the individual in the right way, to appeal to and stimulate his mind in accord with the mental laws the genius unconsciously obeys, and to

²³ **Nicholas Murray Butler** (1862 – 1947) was an American philosopher, diplomat, and educator. Butler was president of Columbia University, president of the Carnegie Endowment for International Peace, and a recipient of the Nobel Peace Prize. He became so well-known and respected that The New York Times printed his Christmas greeting to the nation every year.

²⁴ **William E. Gladstone** (1809 – 1898) British statesman who served as Prime Minister four times (1868-74, 80-85, 86, 92-94), Chancellor of the Exchequer (1853-55, 59-66, 73-74, 80-82), was first elected to Parliament in 1832. The quote is from an <u>address</u> Gladstone delivered before the University of Edinburgh 16 April 1860.

²⁵ James Beattie (1735 – 1803) was a Scottish poet, moralist and philosopher. He was a professor of "Moral Philosopher and Logick" at the University of Aberdeen. The quote from an essay entitled "Remarks on the Utility of Classical Learning" written in 1796. Although frequently attributed to Beattie it is really Beattie using a quote from Rousseau and agreeing with him.

develop the powers, faculties and qualities common to all men, and which genius alone shows in perfect flower.

To present Mental Training in a coherent, consecutive, convincing way and to outline it as a complete and practical system, with the wealth of explanation and detail, illumination, illustration, exercises and suggestion of methods would require a series of books. Upon such a comprehensive work the writer has been engaged for over twenty years with the unsatisfactory limitation of brief snatches of time taken from other demands and duties. Within the limits of a magazine article one can touch merely on a few essentials, high-lights of difference between the ideals and methods of the old and the new. It will be little more than a thumbnail sketch of a great panorama, but enough may be given to appeal to the reader's imagination and to direct his thinking.

The difference between Education and Mental Training are differences in attitude, spirit, aim, scope and methods. We ask of education, "what knowledge does it give?"; of mental training "what power, faculties and qualities does it develop?"; of education "what does it teach?"; of mental training, "in what does it train?" The curricula of the two show how far apart they stand in their purposes and ideals. When asked what are the subjects in her course of study, Education gives: Reading, writing, arithmetic, history, language, geography and the others of its thirty or more subjects. The same question asked of Mental Training would bring forth a different answer: Trained senses, memories, observation, judgment, reasoning, clear-thinking, self-expression, language and conversation; training in accuracy, thoroughness, initiative, resourcefulness, responsibility, concentration, rapidity of thought and action; exercises in physical training, training in character and ethics, in social civilities, courtesies and graces, in civic duties and responsibilities, in appreciation of the beautiful, in sentiment and emotions, in spiritual consciousness. The list is incomplete but it suggests the scope and the larger vision of the proposed model.

This curriculum would apply to the elementary school and the high school. There would be simply a continuous progressive, cumulative perfecting of the training in widening circles of application, and finer forms of expression and activity. The final aim of mental training is to teach thinking, exercising the individual not in *what* to think, but in *how* to think, making all parts of his mental machine work individually at their greatest ease, smoothness and rapidity and in finest co-operation. It is not doing this *for* the individual but *with* him, training him in the how and why of every process, so that his mind and all its manifestations will be under his control. As the exercises become progressively harder the individual will be ready and eager for the next step and the amount of real knowledge, absolute and relative that he can grasp, absorb, assimilate and use will be marvelously increased.

Examinations and markings, as we know them today, would be banished from mental training. They are blighting in their influence, unfair as tests, false as motives for study, and unethical in their reaction on the mind of the student. As an evil they are logical first fruits of a false theory. Max Muller puts one phase of the evil strongly, when he says: "All real joy in study seems to me to have been destroyed by examinations as now conducted. Young men imagine that all their work has but one object—to enable them to pass examinations. Every book they have to read,

MENTAL TRAINING: A REMEDY FOR EDUCATION

even to the number of pages, is prescribed. No choice is allowed; no time is left to look either right or left. What is the result? The required number of pages is gotten up under compulsion, therefore grudgingly, and after the examination is over what has been gotten up is got rid of again like a heavy and useless burden. The only thing that remains is an intellectual nausea — a dislike of the food swallowed under compulsion."²⁶

Guyau²⁷, a wise and witty French educator, says: "An examination is a permission to forget." The child and the older student lives under a constant fear of punishment or failure that stimulates nervousness and lack of attention, warping and wracking the mind. Sometime in the future we shall realize that it is as barbarous an injustice to punish a child by a bad mark for a missed lesson as it would be to whip it for having the measles. The child is not punished for failure to study, but for failure to learn. This is not his fault. He may know ninety per cent of a lesson perfectly and be tripped up by a question on the unlearned ten percent. He dimly realizes this as unjust and feels an unethical and unholy sense of having beaten the game when he later receives a maximum mark on a lesson wherein his answer represents the only thing he knows about it.

Examinations make "cramming" mandatory and this process has a most pernicious effect on mind and brain. They exercise only the rote memory, the weakest of all memories and one often found well developed in defectives and in those almost imbecile. They blur the process of memory by paying no attention to the association of memories by principle, classification and relation. They deaden the mind by putting a premium on acquiring words untranslated into ideas or clear concepts.

In mental training, with no examinations and marking, the child would attend school with joy and freedom, prepared to be led to love knowledge and power for their own sakes and for the use he could make of them. The absence of formal examinations would not imply that no estimate would be made of the child's progress, for he would be under the constant watchful eye of the teacher, studying his progress and development as he would manifest them in his daily activities.

In education we hear and read much about the questions the teacher should put to the child, little or nothing of the questions the child should be inspired to put to the teacher. There is no time for the latter questions in our present system. They represent the child's instinctive effort to orient himself, to get his bearings in a new world, to feed his mind and satisfy his mental hunger, to find out that which it wants to know. The first questions of a child are queries keynoted in "who" or "what." He is first starting wisely with "identity." He soon evolves into "why," "how," "which," "when," and "where," first the thing itself, then its qualities, its relations, its method, process or reason, its time, its location and its individuality. These queries are but the outward expression of inward analysis. A Darwin, a Huxley, a Spencer, or a Newton uses the same words in interviewing Nature.

-

²⁶ **Prof. F. Max Müller** (1823 – 1900) had these words published in multiple magazines including "<u>Comments on the 'Sacrifice of Education</u>", Popular Science, February 1889.

²⁷ **Jean-Marie Guyau** (1854 – 1888) was a French philosopher and poet.

Mental training, modeling its method on the mind of the child and that of genius, has reverence for these questions. It substitutes for textbooks and recitation, the free air of question, discussion, conversation and exchange of thought. The child's questions are vitally significant as a means of self—expression and as evidencing not only its hunger for knowledge but the slant of the child's thoughts, his aptitudes, tastes, reasoning, imagination, tendencies and understanding.

The first duty of mental training is to seek to put the child into harmony with his environment. This means not only answering his questions but stimulating, directing and intensifying them, and giving him knowledge, first and essentially of the immediate world around him, and in this process beginning the training of his mind and all its powers, faculties, and qualities. While the basic principles of mental training would be identical and unchanging the world over, and be as true and applicable in India or Peru as in America, the knowledge to be given would differ. The child in Bombay would have different surroundings, scenery, phases of nature, animal and plant life and manners and customs from those of a child living in Lima. Similar differences, though less in degree, would exist between child life and environment in the Tennessee Mountains and in El Paso, Texas. The basic knowledge would differ but in all instances the natural curiosity would be equally nursed and stimulated in mental training instead of being starved and deadened in education. Today we take a child hungering to understand what he sees and hears in his little world, and place him in the artificial bookish atmosphere of the schoolroom. There we shunt his interest off from the thousand things he wants to know and seek to divert this interest to what is dull, dry, disassociated from his natural life and activities.

It is as though a traveler were new-landed in some strange city of the Orient. With every sense, keen, alert and stimulated and his whole mind avid to know and to understand, he seeks instinctively to adjust himself to his new surroundings. Questions crowd so close and so fast to his lips that he can hardly give them expression. "What is that?" "Who is that man whom all seem to reverence?" "Why does he wear that bright robe?" "What is that strange looking building?" "Why do these men suddenly kneel?" "Why do they stand apart like statues?" "Where are the shops?" "How do these people live at home?" The questions are but the emanations from the white heat of his interest. Suppose that instead of answering them, one were to say, "Come, let us not bother about these things now. I want to give you a course of lessons on cuneiform inscriptions or on quadratic equations," we should have a fair analogue to education's treatment of the child.

Text-books would have no part in mental-training, at least not in its early stages. For them would be substituted the living voice of the teacher. There would be greater appeal to the ear than is made in education. It requires greater mental quickness to grasp and retain what is spoken than what is printed for as this is permanent it can be referred to at will. There is a stronger appeal to the emotion and imagination in the spoken word than in the written or printed. Language, too, has its first message to the ear. In such training there is increased possibility in training in language at its best, for all speak and comparatively few write. The emphasis on the appeal to the ear does not mean that the training of the eye is neglected but it is merely given its true place.

MENTAL TRAINING: A REMEDY FOR EDUCATION

In education, with its program of a fixed amount of knowledge to be given in a fixed period of time, every moment is scheduled; thirty minutes four times a week for this study, forty-five minutes twice a week for another and so on for other studies. The more we reduce education to a mechanism the easier it is to handle as an organization but such mechanizing and standardizing kills its very soul. It intensifies mechanical teaching and mechanical learning. We give a course of so many months in some subject and when the text-book is completed we examine on it, lock the study in some water-tight compartment of the mind where it is isolated from contact with other subjects and pay no further attention to it. It is taught once and that is all about it. It is assumed that because it has been taught the student knows it, retains it and uses it. It is really withdrawn from circulation like Confederate money. The separate studies do not speak to each other, they never mix, marry and procreate with an issue of new ideas.

Mental training cannot be so mechanized. Its aim is not a certain amount of knowledge, fixed and pre-determined but to give each child or older student all the mental power he individually seems capable of developing, with whatever knowledge can be acquired in connection with the process and stimulating such a love of power and knowledge that the individual will be able to acquire for himself such further power and knowledge in the right way as he may later desire. The new model therefore would resent the pressure of an exacting time table. Of course, some kind of a general working program would be evolved but it would be a most elastic affair, following the needs, not determining them. If we were asked what would be the term of the course in any subject in the curriculum of mental training in the elementary schools the answer would be —"eight years." This means that though the direct training would lessen, the subject would always be in the foreground and be exercised in newer lines of thought and activity.

No single power of the mind could long be exercised alone. They are so intimately inter-related that the perfecting of any one implies the developing at the same time of associated powers. In the training of the senses, for instance, in exercising the child to take a clear visual image of a picture, memory classifies it, the reproductive imagination re-creates it vividly on demand, it enters into observation, questions regarding it call forth reason, and a true expression in description is an exercise in language and a drawing is one in art.

Education in her zeal to furnish knowledge, forces it so constantly and continuously and in such large doses into minds uninterested and untrained to assimilate, that the result is a mental dyspepsia that injures the mind instead of strengthening it, straining it instead of training it. Education's ideal of culture is extension, a little of everything. The ideal of mental training is intensity, a smaller field, more thoroughly cared for and nourished. Each exercise must be completely mastered before the next is undertaken.

The semblance of power or knowledge is nothing, its actuality is everything. Education spreads over infinite detail; mental training concentrates on thorough knowledge of fundamentals in any subject, guiding threads, principles and laws and essentials, outlines so perfectly mastered that all later knowledge fits into a prepared scheme where it is tested, seen in proper relation and properly evaluated.

In mathematics, education carries the student through algebra and geometry and beyond. Mental training by lopping off all that follows percentage and discount would save valuable time

that could be devoted to more useful things and would give such thorough drilling in the smaller field that the student could almost work out problems in his sleep. He would be trained to do calculating mentally that now requires pencil and paper, every short-cut would be shown him and he would do the work with ease, accuracy and rapidity. Every adult in our country who has been educated in our public schools has been taught to "bound the states." Each one has singsonged the descriptive formulas over and over again, he has then drawn maps. What percentage of them could bound each of the forty-eight states today? Is not one per cent a very liberal estimate? In mental training, after a series of exercises in visualizing, the boy or girl would be trained to take a clear mental picture of the map of the United States in outline and color. He would be exercised repeatedly until it would be indelibly impressed on his trained memory. Similar methods would be used with maps of the continents. He would then have in his head, for all the years, an atlas of seven maps *tattooed* into memory, ready to be revived in his mind's eye instantly in a moment of need.

In mental training everything is done to secure the child's active, zealous co-operation. Because genius works best and develops its highest powers in what it loves, the child is led, not forced, to love and desire his school life. It does not mean that everything is made easy for him, his mental food predigested for him, and bitter doses of knowledge all sugar-coated and capsuled. The opposite is the true statement, he is given tasks that call forth his mental powers at their strongest, he is made intensely conscious of the specific object of every exercise, its how and why of process and what benefit he should expect from it. The aim of mental training is to inspire rather than merely inform, to stir the hidden energies, to awaken love and desire, to quicken the imagination, to thrill the child with the glory of individual possibility, to give it seeing eyes for the wonders and beauties of life and listening ears for its great message, to fill his mind with the glowing sense of power, self-reliance and self-dominion, to exercise him in initiative and responsibility, to awaken the creative impulse, to show him his true relationship to himself and to the world, to train him to think for himself and to think the best, know the best, feel the best, do the best and live the best.

In this spirit of wakening love and interest, the wonder side, the romance, the appealing, the picturesque in every subject is first presented. We today teach history in a dry-as-dust way, peppered with unimportant dates, that for most people have killed all interest in it as a study or a source of pleasurable reading in later life. What they *do* know has been acquired under the suspended sword of fear of bad marks or the false spur of preparing for examinations. What little the child later remembers is the picturesque episodes, either actually pictured in the books or made real by vivid, colorful description such as the Boston tea-party, the landing of the Pilgrims, Queen Isabella pawning her jewels, Washington crossing the Delaware, Washington at Valley Forge, signing the Declaration of Independence, Franklin and his kite and a few more similar episodes. Most of what remains of what was taught is buried in the oblivion department of memory. Nearly two thousand years ago it was said: "A little child shall lead them." The little child does lead. He is constantly showing us how to help him, he leads us in countless ways

and the young lion and the fatling together; and a little child shall lead them."

Isaiah 11:6 "The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf

MENTAL TRAINING: A REMEDY FOR EDUCATION

in education, but we do not follow. We ignore his revealing of the natural way, and blindly and fatuously continue our false, unnatural, complicated process.

In the study of English literature we have hundreds of able, well-informed, zealous and appreciative teachers in our schools and colleges. But because of the insistence on sweeping the whole field from Chaucer to Chesterton,—the terror of examinations and markings, the burden of remembered names and dates, the drudgery of study and writing papers, the sense of literature as a task, and other contributing factors, the results are far from satisfactory. The teacher's first great duty and fine privilege is to develop a genuine love of reading, and of reading the best. If teachers accomplish this, all they leave undone in literature will be forgiven them. More interest in Shakespeare has been killed by making text-books of his plays than has ever been stimulated by their forced study.

One book, lovingly, leisurely, sympathetically and appreciatingly read aloud to a class, with frequent interruptions and comments—as we stop on a country road to note the beauty of a sunset, a water-fall, a cloud effect, a glory of Autumn foliage, a tree etched against the sky or some other of Nature's beauties—with discussion free and natural as the air, about the happy choice of a word, the imagery, the fuller meaning and message, the charm of fancy, the individual touches, the sympathetic notes of character interpretation, the wisdom, the wit, the philosophy, the emotional or intellectual appeal, would do infinitely more good to the mind than the whole field of literature studied as a task. The true understanding of the soul of one great book is greater than the knowledge of the mere anatomy of a thousand. Lincoln performed miracles of self-culture with three books—the Bible, Shakespeare and Aesop's Fables. This intensive culture is in the spirit of mental training. He who loves one book will discover others to love.

When the suggestion is made that a true system of education should train the individual for each of his seven lives, the first reaction of many minds is the thought that each of them might be developed in a course of so many weeks with proper text-books. This is an initial mistake. You cannot train the physical body, develop character, generate high ideals and practice of morals, prepare for citizenship and for man's true relation to his fellow-man, awaken and intensify his love of the beautiful, inspire in him high emotions and spiritualize his living by brief text-book courses. These great things must be gained in years of daily exercise, running as the warp and woof²⁹ of the whole fabric of mental training. How does a wise mother seek to train her son to character? She seeks to make what she would teach the atmosphere of the home, to inspire him by example, to instill into his mind simple sound principles of right action, to surround him with right influences and to safeguard him from wrong ones, to help him to the best in reading and companionship, to make him not merely obedient but self-directing and morally self-

29

²⁹ **Warp and Woof**: "The essential foundation or base of any structure or organization; from weaving, in which the warp — the threads that run lengthwise — and the woof — the threads that run across — make up the fabric: "The Constitution and the Declaration of Independence are the warp and woof of the American nation.', *The American Heritage* New Dictionary of Cultural Literacy, Third Edition. Houghton Mifflin Company, 2005. 15 Jan. 2012. Dictionary.com.

supporting. These are but a few random suggestions of the atmosphere of the schoolroom in mental training.

The question that naturally comes to the mind in all this is: "How would we get time in the twelve years of elementary education, for the moment ignoring what the colleges should do, if we accepted this model as worthwhile?" The question is proper and pertinent. Time sufficient would there be to lay solid foundations in all of these and to raise a satisfying superstructure. The elimination of certain studies as distinct subjects of courses, the lessening of the scope of others, wiser and more psychologically true methods and the quickened power of the trained minds of the boy or girl to grasp and to assimilate would combine to furnish all the time necessary within, and perhaps very much within the twelve years of elementary and high school education. As to what the colleges now do or fail to do and what they should do is, as Kipling remarks, "Another story." It is too long to enter into at this time.

It will be said that it would require geniuses to teach in this spirit. This is not true. Reduced to its lowest terms what has been written seems but simple, common sense applied to a great problem. Teachers would have to be trained for the work, in its fullest bearings, and special books written on details of the subject and with suggestive exercises. Fifty years ago there was not a chauffeur, an aviator, a typist, a telephone operator or a wireless operator in the United States. The demand created the supply.

How could our present system be transformed into harmony with this suggested model, even if we accepted it? To attempt here to propose even a few partial changes finally leading to fuller harmony seems unnecessary, unsatisfactory, an unwarranted intrusion and would serve only to open up a side discussion that would divert thought from the question at issue. In all that we have written against education as a whole, we wish to give full recognition to the good work in many directions done in many private educational institutions, but at their best they are handicapped and limited by being forced to prepare for entrance to college. Countless educators and psychologists, experimenters and thinkers, seeking a better way have worked out theories, methods, principles and practical details of real value. These would serve richly in correcting, elaborating, or strengthening our incompetent outline of a new model. Certain public schools, in advance of the others, have solved problems in self-government, civic training, play, manual training, children's gardens and other phases worthy only of praise. They have failed to do *more* merely because of the falsity of the basic theory of education.

In closing this series of articles two questions are of supreme importance: "Is preparing and training the individual for the seven lives he must live a sufficiently broad, practical conception of what education should accomplish?" "Is there a possible higher ideal or a more basic foundation for such training than making genius the revelation and the model for true education?" If the answer of the thinking public be one of approval, then the co-operation of educators can transform this vision of what might be into an actuality, this dream into a reality.