

# On Education, Reading, and Knowledge



Education is the transmission of civilization.

—*Will and Ariel Durant*, 1968

Human history becomes more and more a race between education and catastrophe.

—*H. G. Wells*, 1920

Learning is not compulsory; it's voluntary. [...] But to survive, we must learn.<sup>1</sup>

—*W. Edwards Deming*, 1995

The brighter you are, the more you have to learn.

—*Don Herold*, 1926

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Good teaching is forever, and the teacher is immortal.

—*Jesse Stuart*, 1958

Teaching is not a lost art, but the regard for it is a lost tradition.

—*Jacques Barzun*, 1945

America believes in education: the average professor earns more money in a year than a professional athlete earns in a whole week.

—*Evan Esar*, 1943<sup>2</sup>

Good teaching is one-fourth preparation and three-fourths theater.

—*Gail Godwin*, 1974

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<sup>1</sup>Frequently paraphrased as “Learning is not compulsory; neither is survival”.

<sup>2</sup>Note the date. The examples I see around nowadays indicate that this optimistic comparison is no longer valid.

Men learn while they teach.

—*Seneca*, 64 AD

You teach best what you most need to learn.

—*Richard Bach*, 1977

He who can, does. He who cannot, teaches.

—*George Bernard Shaw*, 1903

He who cannot even teach how to do, teaches how to teach.

—*Anonymous*<sup>3</sup>

Any teacher that can be replaced by a machine, should be.

—*Arthur C. Clarke*, 1980

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For every person who wants to teach there are approximately thirty people who don't want to learn - much.

—*W. C. Sellar and R. J. Yeatman*, 1932

Human beings, who are almost unique in having the ability to learn from the experience of others, are also remarkable for their apparent disinclination to do so.

—*Douglas Adams and Mark Carwardine*, 1990

Educate gradually, avoiding bloodshed when possible.

—*Mikhail Saltykov-Shchedrin*, 1870

Studying without a liking for it spoils the memory, and it retains nothing it takes in.

—*Leonardo da Vinci*<sup>4</sup>

You can take a horse to the water, but you can't make him drink.

—*European proverb*

Give neither salt nor advice, until you are asked for it.

—*European proverb*

He who is ashamed of asking, is ashamed of learning.

—*Danish proverb*

Teachers open the door, you enter yourself.

—*Chinese proverb*

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<sup>3</sup>I saw this natural extension of the Shaw's maxim mentioned in print as early as in 1955, already as a known joke. (It was used, in particular, to describe the former USSR Academy of Pedagogical Sciences.)

<sup>4</sup>Undated entry in one of his notebooks, as translated by J. P. Richter in 1883.

The best teacher is the one who [...] inspires his listener with the wish to teach himself.

—*Edward Bulwer-Lytton*, 1873

What we badly need is social approval of learning and social rewards for learning.

—*Isaac Asimov*, 1980

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You don't understand anything until you learn it more than one way.

—*Marvin Minsky*, 2005

I hear and I forget.  
I see and I remember.  
I do and I understand.

—*Xun Kuang*<sup>5</sup>

One must learn by doing the thing; for though you think you may know it, you have no certainty until you try.

—*Sophocles*<sup>6</sup>

I profess to learn and to teach anatomy not from books but from dissections, not from tenets of Philosophers but from the fabric of Nature.

—*William Harvey*, 1628

An ounce of practice is worth a pound of precept.

—*English proverb*

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To study and not think is waste. To think and not study is dangerous.

—*Confucius*, fifth century BC

In youth we learn; in age we understand.

—*Marie von Ebner-Eschenbach*, 1893

Sense comes with age.

—*Spanish proverb*

If youth only knew; if age only could.

—*Henri Estienne*, 1594

Wisdom comes, jump goes.

—*Māris Liepa*<sup>7</sup>

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<sup>5</sup>Sometimes misattributed to Confucius, whose follower Xun Kuang was.

<sup>6</sup>From his play *Women of Trachis*, whose first English translation was apparently published only in 1904.

<sup>7</sup>As popularly attributed, without a date, to this ballet dancer famous for his jumps.

The older I grow the more I distrust the familiar doctrine that age brings wisdom.

—*H. L. Mencken*, 1922

The man who is too old to learn was probably always too old to learn.

—*Henry S. Haskins*, 1940

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Many much-learned men have no intelligence.

—*Democritus*<sup>8</sup>

Intelligence [...] enables a man to get along without education. Education [...] enables a man to get along without the use of intelligence.

—*Albert Edward Wiggam*, 1924

The central task of education is to implant a will and facility for learning; it should produce not learned but learning people.

—*Eric Hoffer*, 1973

An education [is] being able to differentiate between what you do know and what you don't.

—*William Feather*, 1956<sup>9</sup>

Education, *n.* That which discloses to the wise and disguises from the foolish their lack of understanding.

—*Ambrose Bierce*, 1906

Education is what most receive, many pass on, and few possess.

—*Karl Kraus*, 1976

Education is the inculcation of the incomprehensible into the ignorant by the incompetent.

—*Josiah Stamp*, 1933<sup>10</sup>

Education is what survives when what had been learned has been forgotten.

—*B. F. Skinner*, 1964<sup>11</sup>

Education is a method by which one acquires a higher grade of prejudices.

—*Laurence J. Peter*, 1977

Without education, we are in a horrible and deadly danger of taking educated people seriously.

—*G. K. Chesterton*, 1907

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<sup>8</sup>As quoted, without the date, in several reputable sources, starting not later than 1907.

<sup>9</sup>Frequently misattributed to Anatole France.

<sup>10</sup>Frequently misattributed to John Maynard Keynes.

<sup>11</sup>Similar and earlier statements, but about culture rather than education, are attributed to Édouard Herriot and José Ortega y Gasset.

This is one of those views which are so absolutely absurd that only very learned men could possibly adopt them.<sup>12</sup>

—*Bertrand Russell*, 1959

I prefer the company of peasants because they have not been educated sufficiently to reason incorrectly.

—*Michel de Montaigne*<sup>13</sup>

It is better to deal with a whole fool than half a fool.

—*German proverb*

A little Learning is a dang'rous Thing.  
Drink deep, or taste not the Pierian Spring.

—*Alexander Pope*, 1709

If a little knowledge is dangerous, where is the man who has so much as to be out of danger?

—*Thomas Henry Huxley*, 1907

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School is learning things you don't want to know, surrounded by people you wish you didn't know, while working toward a future you don't know will ever come.

—*Dave Kellett*, 2011

A child only educated at school is an uneducated child.

—*George Santayana*, 1935

John has been to school.  
To learn to be a fool.

—*European proverb*

I have never let schooling interfere with my education.

—*Mark Twain*, 1869

It is, in fact, nothing short of a miracle that the modern methods of instruction have not entirely strangled the holy curiosity of inquiry.

—*Albert Einstein*, 1949

Every kid starts out as a natural-born scientist, and then we beat it out of them. A few trickle down the system with their wonder and enthusiasm for science intact.

—*Carl Sagan*, 1996

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<sup>12</sup>About a certain pronouncement of some, in Russell's words, "modern philosophers".

<sup>13</sup>As quoted, without a date, in several reliable collections, including *Wikiquotes*.

College isn't the place to go for any ideas.

—*Helen Keller*, 1916

[Colleges and universities] have become intellectually monochrome purveyors of groupthink.

—*George Will*, 2020

A fool's brain digests philosophy into folly, science into superstition, and art into pedantry. Hence university education.

—*George Bernard Shaw*, 1903

A university develops all abilities, including the foolishness.

—*Anton Chekhov*, 1921

Strange as it may seem, no amount of learning can cure stupidity, and formal education positively fortifies it.

—*Stephen Vizinczey*, 1975

A university is what a college becomes when the faculty loses interest in students.

—*John Ciardi*, 1966

Nature is not organized in the way universities are.

—*Russell Lincoln Ackoff*, 1970

There is a tolerably good agreement about what a university is not. It is not a place of professional education.

—*John Stuart Mill*, 1867<sup>14</sup>

A young man passes from our public schools to the universities, ignorant almost of the elements of every branch of useful knowledge.

—*Charles Babbage*, 1830

Academe, *n.* An ancient school where morality and philosophy were taught.

Academy, *n.* [from Academe] A modern school where football is taught.

—*Ambrose Bierce*, 1906

Academia is to knowledge what prostitution is to love: close enough on the surface but [...] not exactly the same thing.

—*Nassim Nicholas Taleb*, 2010

Nothing in education is so astonishing as the amount of ignorance it accumulates in the form of inert facts.

—*Henry Adams*, 1907

Bachelor's degrees make pretty good placemats if you get 'em laminated.

—*Jeph Jacques*, 2005

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<sup>14</sup>From his inaugural address as the rector of the University of St. Andrews.

The average Ph.D. thesis is nothing but a transference of bones from one graveyard to another.

—*J. Frank Dobie*, 1945

Bob Wilson admitted to himself that a Ph.D. and an appointment as an instructor was not his idea of existence. Still, it beat working for a living.

—*Robert A. Heinlein*, 2005

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[What we become] depends on what we read, after all manner of Professors have done their best for us. [...] The true University of these days is a Collection of Books.

—*Thomas Carlyle*, 1840

The reading of all good books is indeed like a conversation with the noblest men of past centuries.

—*René Descartes*, 1637

A book is a gift you can open again and again.

—*Ron Silliman*, 1988<sup>15</sup>

Where books are burned, in the end people will be burned too.

—*Heinrich Heine*, 1823

An ordinary man can in the ordinary course [...] surround himself with [two thousand books] and thenceforward have at least one place in the world in which it is possible to be happy.

—*Augustine Birrell*, 1895

A couple of months in the laboratory can frequently save a couple of hours in the library.

—*Frank Westheimer*, 1979

Education [...] has produced a vast population able to read but unable to distinguish what is worth reading.

—*G. M. Trevelyan*, 1942

Be as careful of the books you read, as of the company you keep; for your habits and character will be as much influenced by the former as by the latter.

—*Edwin Paxton Hood*, 1851

We must be careful what we read, and not, like the sailors of Ulysses, take bags of wind for sacks of treasure.

—*John Lubbock*, 1901

Few books today are forgivable.

—*R. D. Laing*, 1967

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<sup>15</sup>Sometimes misattributed to Garrison Keillor.

The reason why so few good books are written is that so few people who can write know anything.

—*Walter Bagehot*, 1853

There are many people who read simply to prevent themselves from thinking.

—*Georg Christoph Lichtenberg*<sup>16</sup>

Reading, after a certain age, diverts the mind too much from its creative pursuits. Any man who reads too much and uses his own brain too little falls into lazy habits of thinking.

—*Albert Einstein*, 1929

Books are good enough in their own way, but they are a mighty bloodless substitute for life.

—*Robert Louis Stevenson*, 1877

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Knowledge itself is power.<sup>17</sup>

—*Francis Bacon*, 1597

An investment in knowledge always pays the best interest.

—*Anonymous*<sup>18</sup>

All our science, measured against reality, is primitive and childlike – and yet it is the most precious thing we have.

—*Albert Einstein*, 1951

We must know. We will know.

—*David Hilbert*, 1930

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Knowledge without conscience is but the ruin of the soul.

—*François Rabelais*, 1532<sup>19</sup>

Integrity without knowledge is weak and generally useless, and knowledge without integrity is dangerous and dreadful.

—*Samuel Johnson*, 1759

To educate a man in mind and not in morals is to educate a menace to society.

—*Theodore Roosevelt*<sup>20</sup>

Man armed with science is like a baby with a box of matches.

—*J. B. S. Haldane*, 1924

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<sup>16</sup>From his *Notebook G* (1779–1783).

<sup>17</sup>This original statement is frequently shortened to just “Knowledge is power”.

<sup>18</sup>Broadly attributed to Benjamin Franklin, but not found in Yale’s *Franklin Papers*.

<sup>19</sup>Often misattributed to Michel de Montaigne.

<sup>20</sup>As quoted by many, starting not later than 1931.



Our hearts should know the world of reason, and reason must be guided by an informed heart.

—Bruno Bettelheim, 1990

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There is only one good, knowledge, and one evil, ignorance.

—Socrates<sup>21</sup>

Ignorance is not innocence but sin.

—Robert Browning, 1875

Nothing in all the world is more dangerous than sincere ignorance and conscientious stupidity.

—Martin Luther King Jr., 1963

He who is not aware of his ignorance will only be misled by his knowledge.

—Richard Whatley, 1856

To be proud of learning is the greatest ignorance in the world.

—Jeremy Taylor<sup>22</sup>

The greatest obstacle to [discovery is] not ignorance, but the illusion of knowledge.

—Daniel J. Boorstin, 1983

Very few people, the most remarkable ones, can honestly utter: 'I do not know'.

—Dmitry Pisarev<sup>23</sup>

To be conscious that you are ignorant is a great step to knowledge.

—Benjamin Disraeli, 1845

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Have the courage to be ignorant of a great number of things, in order to avoid the calamity of being ignorant of everything.

—Sydney Smith, 1849

There are many things of which a wise man might wish to be ignorant.

—Ralph Waldo Emerson, 1883

In research a certain amount of intelligent ignorance is essential to progress.

—Charles F. Kettering, 1957

Man can act only because he can ignore.

—Paul Valéry, 1921

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<sup>21</sup>As quoted by Diogenes Laërtius in the third century AD.

<sup>22</sup>First published, apparently, only in 1822.

<sup>23</sup>As quoted, without a date, by V. Vorontsov in 1979.

The whole secret of life is to be interested in one thing profoundly and in a thousand things well.

—*Horace Walpole*<sup>24</sup>

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Science is the belief in the ignorance of experts.

—*Richard Feynman*, 1969

Amateurs built the Ark. Professionals built the Titanic.

—*Richard J. Needham*, 1979<sup>25</sup>

Always listen to experts. They'll tell you what can't be done and why. Then do it.

—*Robert A. Heinlein*, 1973

If the world should blow itself up, the last audible voice would be that of an expert saying it can't be done.

—*Peter Ustinov*, 2004

For every expert there is an equal and opposite expert.

—*Anonymous*<sup>26</sup>

An expert is a person who avoids small error as he sweeps on to the grand fallacy.

—*Benjamin Stolberg*<sup>27</sup>

An expert is someone licensed to do things he cannot do.

—*Erwin Chargaff*, 1980

An expert in any field is a person who knows enough about what's really going on to be scared.

—*P. J. Plauger*, 1983

The price one pays for pursuing any profession or calling is an intimate knowledge of its ugly side.

—*James Baldwin*, 1961

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You live and learn. At any rate, you live.

—*Douglas Adams*, 2000

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<sup>24</sup>As quoted in *The Christian Leader* in 1934.

<sup>25</sup>Paraphrased later by many, including Elizabeth May (in 2014) and Ben Carson (in 2015).

<sup>26</sup>Frequently attributed to Arthur C. Clarke, but he quotes this *4th Law* as a known joke.

<sup>27</sup>As quoted, without a date, in several generally reliable collections, starting not later than 1952.