

LEARNING, BEST QUOTES ON

Somewhere, something incredible is waiting to be known.

--Carl Sagan

It is no profit to have learned well, if you neglect to do well.

--Publilius Syrus

I have never met a man so ignorant that I couldn't learn something from him.

--Galileo Galilei

If someone had told me I would be Pope one day, I would have studied harder.

--Pope John Paul I

We Learn:

10% of what we read

20% of what we hear

30% of what we see

50% of what we both see and hear.

and:

70% of what is discussed with others

80% of what we experience personally

90% of what we TEACH someone else.

--William Glasser

When confronted with the fact that he had not memorized the Periodic Table of Elements, Einstein replied, 'I never memorize anything I can look up!'

--Albert Einstein

Learning is not child's play; we cannot learn without pain.

--Aristotle

When you run into something interesting, drop everything else and study it.

—B. F. Skinner

Tell me and I forget. Teach me and I remember. Involve me and I learn.

—Xunzi (Xun Kuang)

Having an above average teacher for five years running can completely close the average gap between low-income students and others.

--John Kain and Eric
Hanushek

Why don't they pass a constitutional amendment prohibiting anybody from learning anything? If it works as well as prohibition did, in five years Americans would be the smartest race of people on Earth.

--Will Rogers

He who is afraid to ask is afraid of learning.

--Danish Proverb

A person cannot teach another person directly; a person can only facilitate another's learning.

—Carl Rogers

The major difference between rats and people is that rats learn from experience.

—B. F. Skinner

Play is often talked about as if it were a relief from serious learning. But for children play is serious learning. Play is really the work of childhood.

—Fred Rogers

Limiting kids to learning only in the classroom is like buying a Lamborghini & only driving in the driveway.

--Justin Tarte

Don't practice until you get it right. Practice until you can't get it wrong.

--Unknown

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

--Sophocles

After all of our studies we acquire only that which we put into practice.

--Goethe

Learning is by nature curiosity...prying into everything, reluctant to leave anything, material or immaterial, unexplained.

--Philo

Learn to do a thing so thoroughly that no one can improve upon what has been done.

--Booker T. Washington

The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn.

--Alvin Toffler

What you discover on your own is always more exciting than what someone else discovers for you—it's like the difference between romantic love and an arranged marriage.

--Terrence Rafferty

Once you have learned how to ask questions—relevant and appropriate and substantial questions—you have learned how to learn and no one can keep you from learning whatever you want or need to know.

--Neil Postman & Charles
Weingartner

The important thing is not so much that every child should be taught, as that every child should be given the wish to learn.

--John Lubbock

Learning is like rowing upstream; not to advance is to drop back.

--Chinese Proverb

In times of change, the learners inherit the earth while the learned find themselves beautifully equipped to deal with a world that no longer exists.

--Eric Hoffer

For the things we have to learn before we can do them, we learn by doing them.

—Aristotle

There is no sin except stupidity.

--Oscar Wilde

Wear your learning, like your watch, in a private pocket; and do not pull it out and strike it, merely to show that you have one. If you are asked what o'clock it is, tell it; but do not proclaim it hourly and unasked, like the watchman.

--Lord Chesterfield

To learn is a natural pleasure.

--Aristotle

Even the whole of life is not sufficient for thorough learning.

--Plautus

What one knows is, in youth, of little moment; they know enough who know how to learn.

--Henry Adams

It is less painful to learn in youth than to be ignorant in age.

--Solon

However much thou art read in theory, if thou hast no practice thou art ignorant.

--Sa'di

If you want to know how to do a thing you must first have a complete desire to do that thing.

--Robert Henri

He who asks a question is a fool for five minutes; he who does not ask a question remains a fool forever.

--Chinese Proverb

Personally I am always ready to learn, although I do not always like being taught.

--Sir Winston Churchill

I have come to feel that the only learning which significantly influences behavior is self-discovered, self-appropriated learning.

--Carl R. Rogers

Give the pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking; learning naturally results.

—John Dewey

There is nothing mysterious about true learning. It takes place all the time, but, like all creative processes, it is more likely to be in the form of spontaneous combustion than to be the response to methodical coercion.

--Mary H. B. Wollner

The universe is full of magical things patiently waiting for our wits to grow sharper.

--Eden Phillpotts

The real, uncoerced zest for learning goes out of education when it is reduced to a routine transmittal of pre-digested information.

--Harold C. Case

Learning is recognized as a life-long process. Even if a genius could learn in school all there is to know about everything, he could be out of school only a short time before the accumulation of new knowledge would make him a back number.

--Philip H. Falk

I don't think much of a man who is not wiser today than he was yesterday.

--Abraham Lincoln

Even though your brain will forget more than 90 per cent of what you learn during your lifetime, it may still store up as much as 10 times more information than there is in the Library of Congress, with its 9 million volumes.

--Lawrence Galton

I believe there are no poor students, only unmotivated students.

--Frederick Mayer

If you would be a real seeker after truth, it is necessary that at least once in your life you doubt, as far as possible, all things.

--Rene Descartes

The important thing is not to stop questioning.

--Albert Einstein

There's only one thing more painful than learning from experience, and that is not learning from experience.

--Laurence J. Peter

The purpose of learning is growth, and our minds, unlike our bodies, can continue growing as we continue to live.

--Mortimer Adler

Genuine ignorance is...profitable because it is likely to be accompanied by humility, curiosity, and open-mindedness; whereas ability to repeat catch-phrases, cant terms, familiar propositions, gives the conceit of learning and coats the mind with varnish waterproof to new ideas.

--John Dewey

Anyone who stops learning is old, whether at twenty or eighty. Anyone who keeps learning stays young. The greatest thing in life is to keep your mind young.

--Henry Ford

My joy in learning is partly that it enables me to teach.

—Seneca

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

--Don Herold

We see then how far the monuments of wit and learning are more durable than the monuments of power, or of the hands. For have not the verses of Homer continued twenty-five hundred years or more, without the loss of a syllable or letter; during which time infinite palaces, temples, castles, cities have been decayed and demolished?

--Francis Bacon

Learned we may be with another man's learning: we can only be wise with wisdom of our own.

—Michel de Montaigne

To make headway, improve your head.

--B. C. Forbes

Experience is the worst teacher; it gives the test before presenting the lesson.

--Vernon Law

I would live to study, not study to live.

--Francis Bacon

In some cases we learn more by looking for the answer to a question and not finding it than we do from learning the answer itself.

—Lloyd Alexander

Every sort of mastery is an increase of one's freedom.

--Henri Frederic Amiel

To have one favourite study and live in it with happy familiarity, and cultivate every portion of it diligently and lovingly, as a small yeoman proprietor cultivates his own land, this, as to study at least, is the most enviable intellectual life.

--Philip G. Hamerton

Better ask ten times than go astray once.

--Yiddish Proverb

He who is afraid of asking is ashamed of learning.

--Danish Proverb

Effective learning means arriving at new power, and the consciousness of new power is one of the most stimulating things in life.

--Janet Erskine Stuart

If you are way ahead with your head you naturally are old-fashioned and regular in your daily life.

--Gertrude Stein

One of the great tragedies of our time is the separation of the two, of the man of intelligence from the people. The whole vocation of the former is to give light to the people; but he will himself seldom find light in any other source.

--William F. Lynch

There is no great concurrence between learning and wisdom.

--Francis Bacon

People in school today can expect a lifetime in which knowledge itself will radically change--not only in its details but its structures; so that the mark of a truly educated man will no longer be how much or even how variously he now knows, but how quickly and how completely he can continually learn.

--Richard Kostelanetz

Chance favors the prepared mind.

--Louis Pasteur

America is full of a violent desire to learn.

--Le Corbusier

Many things are lost for want of asking.

--English Proverb

A sense of curiosity is nature's original school of education.

--Dr. Smiley Blanton

Experience teaches only the teachable.

--Aldous Huxley

I am the master of everything I can explain.

--Theodore Haecker

One of the reasons mature people stop learning is that they become less and less willing to risk failure.

--John W. Gardner

I think one of the reasons programmed instruction was rejected was that it was too powerful. It suggested that the system was teaching rather than that the student was learning.

--B. F. Skinner

Complacency is the enemy of study. We cannot really learn anything until we rid ourselves of complacency.

--Mao Tse-tung

That which any one has been long learning unwillingly, he unlearns with proportionable eagerness and haste.

--William Hazlitt

One by one the solid scholars
Get the degrees, the jobs, the dollars.

--W. D. Snodgrass

Intelligence is not to make no mistakes
But quickly to see how to make them good.

--Bertolt Brecht

I have but one lamp by which my feet are guided, and that is the lamp of experience. I know of no way of judging of the future but by the past.

--Patrick Henry

He who neglects to drink of the spring of experience is likely to die of thirst in the desert of ignorance.

--Ling Po

I keep six honest serving-men
(They taught me all I knew);
Their names are What and Why and When
And How and Where and Who.

--Rudyard Kipling

The things we know best are the things we haven't been taught.

--Vauvenargues

Just as eating against one's will is injurious to health, so study without a liking for it spoils the memory, and it retains nothing it takes in.

--Leonardo da Vinci

What you yourself don't learn
you don't know.

--Bertolt Brecht

As turning the logs will make a dull fire burn, so change of studies a dull brain.

--Longfellow

I have learned throughout my life as a composer chiefly through my mistakes and pursuits of false assumptions, not by my exposure to fountains of wisdom and knowledge.

--Igor Stravinsky

We have all forgot more than we remember.

--Thomas Fuller

We should take care not to make the intellect our god; it has, of course, powerful muscles, but no personality.

--Albert Einstein

Never regard study as a duty, but as the enviable opportunity to learn to know the liberating influence of beauty in the realm of the spirit of your own personal joy and to the profit of the community to which your later work belongs.

--Albert Einstein

In a free world, if it is to remain free, we must maintain, with our lives if need be, but surely by our lives, the opportunity for a man to learn anything.

--J. Robert Oppenheimer

Study, learn, but guard the original naïveté. It has to be within you, as desire for drink is within the drunkard or love is within the lover.

--Henri Matisse

Try as much as possible to be wholly alive, with all our might, and when you laugh, laugh like hell and when you get angry, get good and angry. Try to be alive. You will be dead soon enough.

--William Saroyan

To spend too much Time in Studies, is Sloth; To use them too much for Ornament, is Affectation; To make Judgement wholly by their rules is the humour of a Scholar.

--Francis Bacon

To be proud of learning, is the greatest ignorance.

--Jeremy Taylor

Anyone who can read and who owns a dictionary can become an educated person. Hungry minds always become educated and sharpen their mental and emotional tools as they grow in life through experience.

--Galen Starr Ross

There are more men ennobled by study than by nature.

--Cicero

In youth we learn; in age we understand.

--Marie

Ebner-Eschenbach

I would say to every person read with your pencil. Never pass a word, or an allusion, or a name you do not understand without marking it down for inquiry. Then go to your dictionary for the definition or explanation; go to the encyclopedia for information as to biographical or historical allusions. Never read about any country without having a map before you. This kind of study will fix things in your minds as no formal method of the schools ever will.

--Beecher

Drudgery is as necessary to call out the treasures of the mind, as harrowing and planting those of the earth.

--Margaret Fuller

Culture is the habit of being pleased with the best and knowing why.

--Henry Van Dyke

Observation more than books, experience rather than persons, are the prime educators.

--A. B. Alcott

He who has imagination without learning has wings and no feet.

--Joubert

Learning is the eye of the mind.

--Thomas Draxe

Learning teacheth more in one year than experience in twenty.

--Roger Ascham

As a field, however fertile, cannot be fruitful without cultivation, neither can a mind without learning.

--Cicero

A single day among the learned lasts longer than the longest life of the ignorant.

--Posidonius

The love of learning and the love of money rarely meet.

--George Herbert

Learning can be defined as a process of progressive change from ignorance to knowledge, and from indifference to understanding.

—Robert John Meehan

Instruction enlarges the natural powers of the mind.

—Horace

Creative activity could be described as a type of learning process where teacher and pupil are located in the same individual.

—Arthur Koestler

Learning to learn is to know how to navigate in a forest of facts, ideas and theories, a proliferation of constantly changing items of knowledge. Learning to learn is to know what to ignore but at the same time not rejecting innovation and research.

--Raymond Queneau

Learning is acquiring knowledge.

--Greek Proverb

I delight in learning so that I can teach.

--Seneca

Whoso neglects learning in his youth,
Loses the past and is dead for the future.

--Euripides

Educated men are as much superior to uneducated men as the living are to the dead.

--Aristotle

Practice is the best of all instructors.

--Publilius Syrus

A failure in life is one who lives and fails to learn.

--Unknown

Don't be afraid to ask dumb questions. They're easier to handle than dumb mistakes.

--William Wister Hanes

School and education should not be confused; it is only school that can be made easy.

--Emile Capouya

Intellectual passion drives out sensuality.

--Leonardo da Vinci

Shun those studies in which the work that results dies with the worker.

--Leonardo da Vinci

Where there is much desire to learn, there of necessity will be much arguing, much writing, many opinions; for opinion in good men is but knowledge in the making.

--John Milton

You have to study a great deal to know a little.

--Charles de Secondat

Good scholarship is not stodgy; it is the cutting edge of the progress of knowing.

--Herbert S. Bailey

A scholar is a man with this inconvenience, that, when you ask him his opinion of any matter, he must go home and look up his manuscript to know.

--Ralph Waldo Emerson

In truth man is made rather to eat ices than to pore over old texts.

--Anatole France

Tim was so learned that he could name a horse in nine languages: so ignorant that he bought a cow to ride on.

--Benjamin Franklin

Learning is not attained by chance, it must be sought for with ardor and attended to with diligence.

--Abigail Adams

The best university that can be recommended to a man of ideas is the gauntlet of the mobs.

--Ralph Waldo Emerson

Experience is the child of Thought, and Thought is the child of Action. We cannot learn men from books.

--Benjamin Disraeli

In doing we learn.

--George Herbert

We should be careful to get out of an experience only the wisdom that is in it—and stop there; lest we be like the cat that sits down on a hot stove lid. She will never sit down on a hot stove lid again—and that is well; but also she will never sit down on a cold one any more.

--Mark Twain

Order and simplification are the first steps toward the mastery of a subject—the actual enemy is the unknown.

--Thomas Mann

More is experienced in one day in the life of a learned man than in the whole lifetime of an ignorant man.

--Seneca

Learning is acquired by reading books; but the much more necessary learning, the knowledge of the world, is only to be acquired by reading men, and studying all the various editions of them.

--Lord Chesterfield

Men learn while they teach.

--Seneca

The things which hurt, instruct.

--Benjamin Franklin

To talk in public, to think in solitude, to read and to hear, to inquire and answer inquiries, is the business of a scholar.

--Samuel Johnson

It is of primordial importance to learn more every year than the year before. After all, what is education but a process by which a person begins to learn how to learn?

--Peter Ustinov

The world would perish were all men learned.

--Thomas Fuller

It is the vice of scholars to suppose that there is no knowledge in the world but that of books.

--William Hazlitt

The world's great men have not commonly been great scholars, nor its great scholars great men.

--Oliver Wendell
Holmes, Sr.

The mind of the scholar, if you would have it large and liberal, should come in contact with other minds. It is better that his armor should be somewhat bruised by rude encounters even, than hang for ever rusting on the wall.

--Henry Wadsworth
Longfellow

A scholar without diligence is a lover without money.

--Sa'di

A learned man is an idler who kills time with study.

--George Bernard Shaw

This is the great vice of academicism, that it is concerned with ideas rather than with thinking.

--Lionel Trilling

A moment's insight is sometimes worth a life's experience.

--Oliver Wendell
Holmes, Sr.

Perfect understanding will sometimes almost extinguish pleasure.

--A. E. Housman

Nothing can be loved or hated unless it is first known.

--Leonardo da Vinci

They who have read about everything are thought to understand everything, too, but it is not always so; reading furnishes the mind only with materials of knowledge; it is thinking that makes what we read ours. We are of the ruminating kind, and it is not enough to cram ourselves with a great load of collections—we must chew them over again.

—John Locke

If you would thoroughly know anything, teach it to others.

--Tryon Edwards

Learning is wealth to the poor, an honor to the rich, an aid to the young, and a support and comfort to the aged.

—John C. Lavatar

Learning makes a man fit company for himself.

—Thomas Fuller

He is a learned man that understands one subject; a very learned man who understands two.

--Emmons

To be proud of learning, is the greatest ignorance.

--Jeremy Taylor

Judge of a man by his questions rather than by his answers.

--Voltaire

Whatever is good to know is difficult to learn.

--Greek Proverb

He who would learn to fly one day must first learn to stand and walk and run and climb and dance; one cannot fly into flying.

--Friedrich Nietzsche

In all things we learn only from those we love.

--Goethe

Studies are like sandcastles. The less time you invest in them, the easier they wash away. Build something solid!

--Unknown

Responsibility for learning belongs with the student regardless of age.

--Robert Martin

To look is one thing. To see what you look at is another. To understand is still something else. But to act on what you learn is all that really matters.

--Unknown

We have quit learning if we don't feel a little more ignorant every day.

--Unknown

The cure for boredom is curiosity.
There is no cure for curiosity.

--Dorothy Parker

Formula for perpetual ignorance: Be satisfied with your opinions and content with your knowledge.

--Elbert Hubbard

A LEARNER

Each day I learn more than I teach;
I learn that half knowledge of another's life leads to false judgment;
I learn that there is a surprising kinship in human nature;
I learn that it's a wise father who knows his own son;
I learn that what we expect we get;
I learn that there's more good than evil in this world;
That age is a question of spirit;
That youth is the best of life no matter how numerous its years;
I learn how much there is to learn.

--Virginia Church

Anything you can *tell* a learner, anything you can 'teach' to him, will probably turn out to be trivial or harmful; most truly powerful and constructive insights are learned, not taught.

--Harvey Daniels and
Steven Zemelman

Children do not set out to acquire learning as such, but to do things. In the course of doing things, they have need of subject matter; and as a result of manipulating content and materials in doing these things, they learn.

--John Dewey

Learners do not care how much you know until they know how much you care.

--Theodore Roosevelt

Liberty without learning is always in peril, and learning without liberty is always in vain.

--John F. Kennedy

What we learn with pleasure, we never forget.

--Alfred Mercier

All students can learn and succeed, but no on the same day in the same way.

--William G. Spady

To myself I seem to have been only like a boy playing on the seashore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me.

--Isaac Newton

What we don't need to know for achievement, we need to know for our pleasure. Knowing how things work is the basis of appreciation, and is thus a source of civilized delight.

--William Safire

There is no satiety in study.

--Erasmus

Who learns by Finding Out has sevenfold
The Skill of him who learned by Being Told.

--Arthur Guiterman

All learning has an emotional base.

--Plato

When you stop learning, stop listening, stop looking and asking questions, always new questions, then it is time to die.

--Lillian Smith

I am learning all the time. The tombstone will be my diploma.

--Eartha Kitt

A little learning, indeed, may be a dangerous thing, but the want of learning is a calamity to any people.

--Frederick Douglass

Learning is the knowledge of that which none but the learned know.

--William Hazlitt

If you did not learn your lesson to display it in action, what did you learn it for?

--Epictetus

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

--Don Herold

Being ignorant is not so much a shame as being unwilling to learn.

--Benjamin Franklin

Poverty must not be a bar to learning and learning must offer an escape from poverty.

--Lyndon B. Johnson

A Little Learning *misleadeth*, and a great deal often *stupifieth* the Understanding.

--George Savile

Abandon learning, and you will be free from trouble and distress.

--Lao-tzu

In the traditional method the child must say something that he has merely learned. There is all the difference in the world between having something to say, and having to say something.

--John Dewey

Never learn anything until you find that you have been uncomfortable for a long while by not knowing it.

--Samuel Butler

Don't tell me because they're poor, don't tell me that because they live in a certain section, don't tell me because they come from single parents, don't tell me because they're immigrant that they cannot learn.

--Ramon Cortines

You can get help from teachers, but you are going to have to learn a lot by yourself, sitting alone in a room.

--Theodore Geisel

If I plan to learn, I must learn to plan.

--Unknown

The first object of any art of learning, over and beyond the pleasure it may give, is that it should serve us in the future. Learning should not only take us somewhere. It should allow us later to go further more easily.

--Jerome Bruner

The best of all things is to learn. Money can be lost or stolen, health and strength may fail, but what you have committed to your mind is yours forever.

--Louis L'Amour

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

--Don Herrold

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

--Marvin Minsky

I've known countless people who were reservoirs of learning, yet never had a thought.

—Wilson Mizner

A man learns to skate by staggering about making a fool of himself; indeed, he progresses in all things by making a fool of himself.

—George Bernard Shaw

He who adds not to his learning diminishes it.

—*The Talmud*

Men learn while they teach.

—Seneca

The wisest mind has something yet to learn.

—Santayana

Shall I tell you the secret of the true scholar? It is this: Every man I meet is my master in some point, and in that I learn of him.

--Ralph Waldo Emerson

Live to learn and you will learn to live.

--Portuguese Proverb

With knowledge doubling every year or so 'expertise' now has a shelf life measured in days; everyone must be both learner and teacher....Learning or education was a task of childhood in preparation for entering adult life and work. Now learning is literally the work of the majority of U.S. jobs.

--Lewis J. Perelman

Bear in mind that the wonderful things you learn in your schools are the work of many generations, produced by enthusiastic effort and infinite labor of every country in the world. All this is put into your hands as your inheritance in order that you may receive it, honor it, add to it, and one day faithfully hand it on to your children. Thus do we mortals achieve immortality in the permanent things that we create in common. If you always keep that in mind you will find a meaning in life and work and acquire the right attitude toward other nations and ages.

--Albert Einstein

That is what learning is. You suddenly understand something you've never understood all your life, but in a new way.

--Doris Lessing

No profit grows where is no pleasure taken; in brief, sir, study what you most affect.

--William Shakespeare

The true order of learning should be: first, what is necessary; second, what is useful; and third, what is ornamental. To reverse this arrangement is like beginning to build at the top of the edifice.

--Lydia H. Sigourney

It is only by doing things that one learns how to do things.

--E. W. Scripps

Do not be puffed up because of your knowledge nor overconfident because you are a learned person. Take counsel with the ignorant as well as with the wise, for the limits of proficiency cannot be reached and no person is ever fully skilled.

--Egyptian Magistrate
Ptah-Hotep

As turning the logs will make a dull fire burn, so change of studies a dull brain.

--Longfellow

The thirst to know and understand,
A large and liberal discontent;
These are the goods in life's rich hand,
The things that are more excellent.

--Sir William Watson

One ounce of learning requires ten pounds of common sense to apply it.

--Persian Proverb

I have learned silence from the talkative, toleration from the intolerant, and kindness from the unkind.

—Kahlil Gibran

Learning is not compulsory...neither is survival.

--W. Edwards Deming

You don't need anything else more than the desire to learn, which I call *ganas*.

--Jaime Escalante

If you're illiterate, people can do anything they want to you. . . . As you go through life X-ing documents, unable to defend yourself against forces hostile to you, people can deprive you of your voting rights through gerrymandering schemes, build a freeway next your apartment building, or open a retail crack operation on your block, with people coming and going as though you lived next door to Burger King—because you're not articulate enough to fight back, because you don't have sense enough to know what is happening to you, and so you're shoveled under at each turn in your life; you might as well be dead.

--Ishmael Reed

Through learning we become able to do something we were never able to do...we re-perceive the world and our relationship to it.

--Peter Senge

Learning is what most adults will do for a living in the 21st century.

--S. J. Perelman

The important thing is not to stop questioning.

--Albert Einstein

There is no easy method of learning difficult things. The method is to close the door, give out that you are not at home, and work.

--Joseph de Maistre

It is a glorious fever, that desire to know.

--Edward Bulwer Lytton

Most men believe that it would benefit them if they could get a little from those who *have* more. How much more would it benefit them if they would learn a little from those who *know* more.

—William J. H. Boetcker

Anyone who stops learning is old, whether this happens at twenty or eighty. Anyone who keeps on learning not only remains young, but becomes constantly more valuable regardless of physical capacity.

—Harvey Ullman

In the conditions of modern life the rule is absolute, the race which does not value trained intelligence is doomed.

—Alfred North
Whitehead

Indiscriminate study bloats the mind.

—D. Sutton

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

—Henry S. Haskins

Have you learn'd lessons only of those who admired you,
and were tender with you, and stood aside for you?
Have you not learn'd great lessons from those who reject
you and brace themselves against you? or who treat you
with contempt, or dispute the passage with you?

—Walt Whitman

I never understand anything until I have written about it.

--Horace Walpole

Learning starts with failure; the first failure is the beginning of education.

--John Hersey

Most of us have learned a good deal more out of school than in it. We have learned from our families, our work, our friends. We have learned from problems resolved and tasks achieved but also from mistakes confronted and illusions unmasked....Some of what we have learned is trivial: some has changed our lives forever.

--Laurent A. Daloz

A dropout is a youngster who will find it hard to earn a living because he refuses to learn a living.

--Unknown

We have two lives—the one we learn with and the life we live after that.

--Bernard Malamud

All learning begins when our comfortable ideas turn out to be inadequate.

—John Dewey

Example has more followers than reason.

—Bovee

F.A.I.L. = First Attempt In Learning.

—A. P. J. Abdul Kalam

He who laughs most, learns best.

—John Cleese

Parental attitudes have greater correlation with pupil achievement than material home circumstances or variations in school and classroom organization, instructional materials, and particular teaching practices.

--*Central Advisory
Council for
Education*

The IQ is often less important in education than the *I Will*.

--Unknown

A scholar is someone who owns more hard-cover books than paperbacks.

--Unknown

A scholar lives to learn, but seldom learns to live.

--Unknown

Learning teaches you how foolish you are.

—Criss Jami

I am convinced that it is of primordial importance to learn more every year than the year before. After all, what is education but a process by which a person begins to learn how to learn?

--Peter Ustinov

There is more to knowing than just being correct.

--Benjamin Huff

Ganas suggests a powerful urge to get ahead, a willingness to sacrifice and to work hard. *Ganas* conquers all. '*Ganas* is All I Need' is a motto I give my students. I tell them that once they have *ganas*, learning is easy.

--Jaime Escalante

Learning is wealth that can't be stolen.

--Philippine Proverb

Few are too young, and none too old, to make the attempt to learn.

--Booker T. Washington

Natural abilities are like natural plants; they need pruning by study.

--Francis Bacon

He who asks a question may be a fool for five minutes; he who never asks a question remains a fool forever.

—Chinese Proverb

Curiosity is the wick in the candle of learning.

--William Willard

Lifelong learning will help you be happier, earn more, and even stay healthier, experts say. Plus, plenty of the smartest names in business, from Bill Gates to Elon Musk, insist that the best way to get smarter is to read.

—Jessica Stillman

No significant learning occurs without a significant relationship.

--James Comer

Learning is always rebellion....Every bit of new truth discovered is revolutionary to what was believed before.

--Margaret Lee Runbeck

Even without success, creative persons find joy in a job well done. Learning for its own sake is rewarding.

--Mihaly
Csikszentmihalyi

Wealth, if you use it, comes to an end; learning, if you use it, increases.

--Swahili Saying

I have learned throughout my life as a composer chiefly through my mistakes and pursuits of false assumptions, not my exposure to founts of wisdom and knowledge.

--Igor Stravinsky

In the world of the future, the new illiterate will be the person who has not learned to learn.

--Alvin Toffler

The beautiful thing about learning is nobody can take it away from you.

--B. B. King

A good stack of examples, as large as possible, is indispensable for a thorough understanding of any concept, and when I want to learn something new, I make it my first job to build one.

--Paul Richard Halmos

The best way to learn is through the powerful force of rhythm.

--Mozart

Learning stamps you with its moments. Childhood's learning is made of moments. It isn't steady. It's a pulse.

--Eudora Welty

Studies serve for delight, for ornament, and for ability.

--Francis Bacon

Learning is the very essence of humility, learning from everything and from everybody. There is no hierarchy in learning.

--J. Krishnamurti

You learn what you want to learn when you need to learn it.

--Bob Schiefer

Almost all youngsters—and apparently oldsters as well—are capable of attaining the same standards within a reasonable period of time. All but a few babies, for instance, learn to walk by the age of two and to talk by the age of three. But no two get there quite the same way, as parents have known for eons.

So too at higher levels. Some children learn best by rote, in structured environments with high certainty and strict discipline. Others thrive in the less-structured permissive atmosphere of a progressive school....Some students need prescribed daily doses of information; others need challenge, the 'broad picture,' and a high degree of responsibility for the design of their own work. But for too long, educators have insisted that there is one best way to teach and learn, even though they have disagreed about what the way is.

--Peter Drucker

We should not only use the brains we have, but all that we can borrow.

--Woodrow Wilson

We teach toward the Einsteins and forget the shopkeepers. Mediocrity is unscholarly and unacademic, even though a small increase in ability across society may be more valuable than a few more people at the peak (who would probably have got there anyway.)

--Edward de Bono

A man only learns in two ways, one by reading, and the other by association with smarter people.

--Will Rogers

Learning should be a joy and full of excitement. It is life's greatest adventure; it is an illustrated excursion into the minds of noble and learned men, not a conducted tour through a jail.

--Taylor Caldwell

The grand schoolmaster is Practice.

--Thomas Carlyle

People seldom improve when they have no other model but themselves to copy after.

--Oliver Goldsmith

If you want people to think, ask them a question.

--Lenay Smith

Get over the idea that only children should spend their time in study. Be a student so long as you still have something to learn, and this will mean all your life.

--Henry Doherty

Genius is entitled to respect only when it promotes the peace and improves the happiness of mankind.

--Lord Essex

You cannot teach a person anything. You can only help him to find it in himself.

--Galileo

Do not weep; do not wax indignant. Understand.

--Baruch Spinoza

Learning is a form of accepting.

--Stella Terrill Mann

Learning without thought is labor lost.

Thought without learning is perilous.

--Confucius

The true delight is in the finding out rather than in the knowing.

--Isaac Asimov

We are generally the better persuaded by the reasons we discover ourselves than by those given to us by others.

--Blaise Pascal

Never expect miracles. It is steady progress that we want, and it will come with industry and patience.

--John Wooden

Interaction is one of the essential ingredients for learning.

--Piaget

To learn is to change. Education is a process that changes the learner.

--George B. Leonard

The beginning place of a child's education is a parent's expectations of a child's ability. A child not expected to learn doesn't learn well.

--Richard Riley

It isn't how much you learn that makes you educated; it's how little you forget.
—Unknown

Education is to get where you can start to learn.
--George Aiken

The only thing that interferes with my learning is my education.
--Albert Einstein

In Rousseau's view (1762)...most of the problems of education are problems of motivation, as teachers try to rush things. They talk of geography before the child knows the way around his own backyard. They teach history before the child understands anything about adult motivation....It would be far better, to let questions arise naturally....When a child is self-motivated, the teacher cannot keep him from learning.
--C. John Sommerville

Intellectual growth should commence at birth and cease only at death.
--Albert Einstein

It's not that I'm so smart, it's just that I stay with problems longer.
--Albert Einstein

The pursuit of truth and beauty is a sphere of activity in which we are permitted to remain children all our lives.
--Albert Einstein

Curiosity is one of the permanent and certain characteristics of a vigorous intellect.
--Samuel Johnson

Students will not work in classes that do not satisfy their needs.
--William Glasser

Learning does not take place in isolation. Students bring to the learning setting what they have experienced and the values they have been taught at home and in their neighborhoods. This affects how they respond.
--*National Center for
Education
Statistics*

Know how to ask. There is nothing more difficult for some people, nor for others, easier.

--Baltasar Gracian

The least of learning is done in the classrooms.

--Thomas Merton

The single most important factor in determining student achievement is not the color of students' skin or where they come from. It's not who their parents are or how much money they have. It's who their teacher is.

--Barack Obama

That's the reason they're called lessons...because they lessen from day to day.

—Lewis Carroll

Connecting play and imagination may be the single most important step in unleashing the new culture of learning.

--John Seely Brown and
Douglas Thomas

The central task of education is to implant a will and a facility for learning; it should produce not learned but learning people. The truly human society is a learning society, where grandparents, parents, and children are students together. In a time of drastic change it is the learners who inherit the future. The learned usually find themselves equipped to live in a world that no longer exists.

--Eric Hoffer

I think, at a child's birth, if a mother could ask a fairy godmother to endow it with the most useful gift, that gift should be curiosity.

—Eleanor Roosevelt

There is no correlation between homework and achievement. According to a 2005 study by the Penn State professors Gerald K. LeTendre and David P. Baker, some of the countries that score higher than the U.S. on testing in the *Trends in International Mathematics and Science Study*—Japan and Denmark, for example—give less homework, while some of those scoring lower, including Thailand and Greece, assign more. Why pile on the homework if it doesn't make even a testable difference, and in fact may be harmful?

--Karl Taro Greenfeld

Unless you try to do something beyond what you have already mastered, you will never grow.

--Ralph Waldo Emerson

Live as if you were to die tomorrow. Learn as if you were to live forever.

--Mahatma Gandhi

The debate about homework should not be 'how much?' but 'what kind?' and 'what for?' Using homework merely to cover material there was no time for in class is less helpful, for example, than 'distributed practice': reinforcing and reviewing essential skills. Independent reading is also important. There are many more rare and unique words in even relatively simple texts than in the conversation of college graduates. Reading widely and with stamina is an important way to build verbal proficiency and background knowledge, keys to mature reading comprehension.

--Robert Pondiscio

Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid.

-- Albert Einstein

Your brain can only absorb what your ass can endure.

--P. Dan Wiwchar

We learn not in the school, but in life.

--Lucius Annaeus Seneca

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

--Martin Luther King, Jr.

Change is the end result of all true learning.

--Leo Buscaglia

The world of learning is so broad, and the human soul is so limited in power! We reach forth and strain every nerve, but we seize only a bit of the curtain that hides the infinite from us.

--Maria Mitchell

Ignorance breeds fear.

--Mike Wilson

Don't limit a child to your own learning, for he was born in another time.
--Rabindranath Tagore

I cannot think of anything more valuable to ward off old age than being a lifelong learner.
--Barbara Salvione

Example is the school of mankind, and they will learn at no other.
—Edmund Burke

If a child can't learn the way we teach, maybe we should teach the way they learn.
—Ignacio Estrada

I don't believe anybody can really grasp everything that's even in one textbook.
—Joshua Lederberg

Much learning does not teach understanding.
—Heraclitus

A little learning is a dangerous thing, but we must take that risk because a little is as much as our biggest heads can hold.
—George Bernard Shaw

I talk and talk and talk, and I haven't taught people in fifty years what my father taught me by example in one week.
—Mario Cuomo

We have to abandon the idea that schooling is something restricted to youth. How can it be, in a world where half the things a man knows at 20 are no longer true at 40—and half the things he knows at 40 hadn't been discovered when he was 20?
—Arthur C. Clarke

Neither comprehension nor learning can take place in an atmosphere of anxiety.
—Rose Kennedy

The greatest thing a human being ever does in this world is to see something. To see clearly is poetry, prophecy, and religion; all in one.
—John Ruskin

And so I learned, not from those who taught, but from those who talked with me.
—St. Augustine

Time was also (as an infant) I knew no Latin; but this I learned without fear of suffering, by mere observation, amid the caresses of my nursery and jests from friends, smiling and sportively encouraging me. This I learned without any pressure of punishment to urge me on, for my heart urged me to give birth to its conception, which I could only do by learning words not of those who taught but of those who talked with me; in whose care also I gave birth to the thoughts, whatever I conceived. No doubt then, that a free curiosity has more force in our learning these things than a frightful enforcement.

—St. Augustine

We learn what we live, and we learn it to the degree that we live it.

—William Heard
Kilpatrick

Learning needs to be conceived of as something a learner does, not something that is done to a learner.

—Catherine Fosnot

You have to do a lot of listening; you don't just learn out of yourself.

—Ruggiero Ricci

If you are not willing to learn, no one can help you. If you are determined to learn, no one can stop you.

—*Grammarly*

As we acquire more knowledge, things do not become more comprehensible, but more mysterious.

—Albert Schweitzer

I have never in my life learned anything from any man who agreed with me.

—Dudley Field Malone

Expecting all children the same age to learn from the same materials is like expecting all children the same age to wear the same size clothing.

—Madeline Hunter

True scholarship consists in knowing not what things exist, but what they mean; it is not memory but judgment.

—James Russell Lowell

Experience is a hard teacher because she gives the tests first, the lessons afterwards.

—Vernon Suanders Law

How vain is learning unless intelligence go with it.

—Stobaeus

It shouldn't matter how slowly a child learns as long as we are encouraging them not to stop.

—Robert John Meehan

Experience is the hardest kind of teacher. It gives you the test first and the lesson afterward.

—Oscar Wilde

Every adult needs a child to teach; it's the way adults learn.

--Frank Clark

It is the fear of not being able to learn which makes students reject learning. It is our job to give students the light to have confidence in their ability.

—Unknown

We think too much about effective methods of teaching and not enough about effective methods of learning.

—John Carolus

The sweetest path of life leads through the avenues of learning, and whoever can open up the way for another, ought, so far, to be esteemed a benefactor to mankind.

--David Hume

Within even the reluctant student there is a small part that wants desperately to learn. The strength of the desire is determined by someone's belief in him or her.

—Unknown

I was still learning when I taught my last class.

--Claude M. Fuess

Sadly, children's passion for learning often ends when they encounter a world that seeks to educate them for conformity and obedience only.

—Robert John Meehan

The greatest obstacle to growth and development, to learning and to improved function, or even to continued function on the level already reached is discouragement, doubt in one's own ability.

--Russell Dreikurs

Four key beliefs that, when embraced by students, seem to contribute most significantly to their tendency to persevere in the classroom:

1. I belong in this academic community.
2. My ability and competence grow with my effort.
3. I can succeed at this.
4. This work has value for me.

If students hold these beliefs in mind as they are sitting in math class, Farrington [Camille] concludes, they are more likely to persevere through the challenges and failures they encounter there. And if they don't, they are more likely to give up at the first sign of trouble.

—Paul Tough

It is the malady of our age that the young are so busy teaching us that they have no time left to learn.

--Eric Hoffer

There are some things you learn best in calm, and some in storm.

—Willa Cather

The amount of stress on a student is *ridiculous*. Students feel the constant need at our school of having to keep up with all the achievements. We'll do just fine, even though we got a B-minus on that chem test. And no, I won't join the debate team for *you*. We love our moms and we love our dads, *but calm down*.

—Martha Cabot, High School Sophomore

I would like to be a scholar in whatever I do, a scholar is never finished, he is always seeking and I am always seeking.

—Ahmad Jamal

Life is tough, but it's tougher when you're stupid.

—John Wayne

Luthar constructed a profile of elite American adolescents whose self-worth is tied to their achievements and who see themselves as catastrophically flawed if they don't meet the highest standards of success. Because a certain kind of success seems well within reach, they feel they have to attain it at all costs—a phenomenon she refers to as 'I can, therefore I must.' Middle-class kids, she told me, generally do not live with the expectation that they should go to Stanford or earn \$200,000 a year. 'If I've never been to the moon,' she said of middle-class families, 'why would I expect my kids to go there?' The yardstick for the children of the meritocratic elite is different, and it can intimidate as much as it can empower.

—Hanna Rosin citing a
Yale Psychiatry
Department Study
by Suniya Luthar

A piece of you cringes when you hear that your friend has been preparing for the SAT with classes since last summer, and that they're already scoring a 2000. (And what about...the girl taking a summer immersion program to skip ahead and get into AP French her sophomore year? And that internship your best friend has with a Stanford professor?) You can't help but slip into the system of competitive insanity...We are not teenagers. We are lifeless bodies in a system that breeds competition, hatred, and discourages teamwork and genuine learning. We lack sincere passion. We are sick...Why is that not getting through to this community? Why does this insanity that is our school district continue?

—Carolyn Walworth,
High School Junior

Sometimes when learning comes before experience It doesn't make sense right away.

—Richard Bach

Learning is the beginning of wealth. Learning is the beginning of health. Learning is the beginning of spirituality. Searching and learning is where the miracle process all begins.

—Jim Rohn

Play is the highest form of research.

—Albert Einstein

Learning anything new past the age of 30 is an upward climb: Researchers have found that some of your cognitive abilities (in particular, processing speed) begin to decline in your 20s and 30s. In a cruel act of betrayal, the middle-aged brain even turns its singular advantage—our experience—against us. Through a phenomenon known as interference, the expertise we have accumulated can slow further learning. As Sherry L. Willis, a behavioral scientist at the University of Washington, puts it, ‘Your store of knowledge—the number of file drawers you have to go through to retrieve and to get the relevant information and refile the information—increases with age.’ This explains, for example, why switching from a PC to a Mac makes people homicidal: The fact that your brain and fingers remember the old key-command system makes mastering the new one more of a struggle.

—Barbara Bradley
Hagerty

Human curiosity, the urge to know, is a powerful force and is perhaps the best secret weapon of all in the struggle to unravel the workings of the natural world.

—Aaron Klug

He who follows his lessons tastes a profound peace, and looks upon everybody as a bunch of manure.

—Moliere

Character matters. Researches concerned with academic-achievement gaps have begun to study, with increasing interest and enthusiasm, a set of personal qualities—often referred to as noncognitive skills, or character strengths—that include resilience, conscientiousness, optimism, self-control, and grit. These capacities generally aren’t captured by our ubiquitous standardized tests, but they seem to make a big difference in the academic success of children, especially low-income children.

—Paul Tough

I am a toddler. I am not built to sit still, keep my hands to myself, take turns, be patient, stand in line, or keep quiet. I need motion, I need novelty, I need adventure, and I need to engage the world with my whole body. Let me play. (Trust me, I’m learning.)

—Unknown

I don’t divide the world into the weak and the strong, or the successes and the failures...I divide the world into the learners and non-learners.

—Benjamin Barber

Lectures are pedagogically unsound, although for universities looking to trim budgets they are at least cost-effective, with one employee for dozens or hundreds of tuition-paying students. A great way to teach, but a terrible way to learn.

--Stephen M. Kosslyn

Learning becomes relevant when we connect it with reality.

—Robert John Meehan

You do not really understand something unless you can explain it to your grandmother.

—Albert Einstein

Excellence is a better teacher than mediocrity. The lessons of the ordinary are everywhere. Truly profound and original insights are to be found only in studying the exemplary.

—Warren G. Bennis

I am always doing that which I can not do, in order that I may learn how to do it.

—Vincent van Gogh

There are no seven wonders of the world in the eyes of a child. There are seven million.

—Walt Streightiff

We learn by example and by direct experience because there are real limits to the adequacy of verbal instruction.

—Malcom Gladwell

The shrewd guess, the fertile hypothesis, the courageous leap to a tentative conclusion: these are the most valuable coin of the thinker at work. But in most schools guessing is heavily penalized and is associated somehow with laziness.

—Jerome S. Bruner

The best learners... often make the worst teachers. They are, in a very real sense, perceptually challenged. They cannot imagine what it must be like to struggle to learn something that comes so naturally to them.

—Stephen Brookfield

Persistent questioning and healthy inquisitiveness are the first requisite for acquiring learning of any kind.

—Gandhi

Children have real understanding only of that which they invent themselves, and each time that we try to teach them too quickly, we keep them from reinventing it themselves.

—Piaget

We should turn out people who love learning so much and learn so well that they will be able to learn whatever needs to be learned.

—John Holt

Many children struggle in schools... because the way they are being taught is incompatible with the way they learn.

—Peter Senge

The only person who is educated is the one who has learned how to learn and change.

— Carl Rogers

If I am walking with two other men, each of them will serve as my teacher. I will pick out the good points of the one and imitate them, and the bad points of the other and correct them in myself.

—Confucius

Experience fails to teach where there is no desire to learn.

—George Bernard Shaw

Teach thy tongue to say 'I do not know' and thou shalt progress.

—Moses Ben Maimon
Maimonides

Bitter are the roots of study, but how sweet their fruit.

—Cato

Spoon feeding in the long run teaches us nothing but the shape of the spoon.

— E. M. Forster

The expert at anything was once a beginner.

—Helen Hayes

Teaching is only demonstrating that it is possible. Learning is making it possible for yourself.

—Paulo Coelho

Writing is not simply a way for students to demonstrate what they know. It is a way to help them understand what they know. At its best, writing is learning.

--*National*

*Commission on
Writing in
America's
Schools and
Colleges 2003*

Discoveries are often made by not following instructions, by going off the main road, by trying the untried.

--Frank Tyger

No man would listen to you talk if he didn't know his turn was next.

--Ed Howe

The learning process is something you can incite, literally incite, like a riot.

—Audre Lorde

When my students come to me, they think confusion is bad. They are wrong. Confusion is the place where learning occurs.

—Kelly Gallagher

It is better to know some of the questions than all of the answers.

--James Thurber

That which we persist in doing becomes easier, not that the task itself has become easier, but that our ability to perform it has improved.

—Ralph Waldo Emerson

By seeking and blundering we learn.

--Johann Wolfgang Von
Goethe

Our capacity to command our cognitive and affective processes is heavily influenced by the character of our early lives both at home and school.

--Richard Paul

When a man grows old, he can no more learn much than he can run much.

—Plato

This life's hard, man, but it's harder if you're stupid!

—Steven Keats
in *The
Friends of
Eddie Coyle*

Always walk through life as if you have something new to learn and you will.

—Vernon Howard

Mystery creates wonder and wonder is the basis of man's desire to understand.

—Neil Armstrong

The beginning of education lies in the exploration of the meaning of words.

--Antisthenes

The knowledge of words is the gate to scholarship.

—Woodrow Wilson

You have learned something. That always feels at first as if you had lost something.

—H. G. Wells

Learning is a living experience in open time, a direct human dialogue, ideally structured by a qualified teacher existing within a living, healthy academic culture.

—Dr. David Gleicher

Learning is the beginning of wealth. Learning is the beginning of health. Searching and learning is where the miracle process all begins.

—Jim Rohn

Develop a passion for learning. If you do, you will never cease to grow.

—Anthony D'Angelo

Generally speaking, you aren't learning much when your mouth is moving.

—Steve Johnson

We push our students somewhere between frustrating and challenging ... that's where true learning happens.

—Cynthia Johnson

Thoroughly to teach another is the best way to learn for yourself.

--Tryon Edwards

If the student fails to learn, the teacher fails to teach.

--Sidney Sugarman

When Eric Bonabeau assigned the reading for his class on induction, he barely bothered to tell us what induction was, or how it related to North Atlantic cod. When I asked him afterward about his decision not to spend a session introducing the concept, he said the Web had plenty of tutorials about induction, and any student ought to be able to learn the basics on her own time, in her own way. Seminars are for advanced discussion....Just as learning to read in Latin was essential before books became widely available in other languages, gathering students in places where they could attend lectures in person was once a necessary part of higher education. But by now books are abundant, and so are serviceable online lectures by knowledgeable experts.

--Graeme Wood

No student knows his subject: the most he knows is where and how to find out the things he does not know.

—Woodrow Wilson

James A. Garfield said that a log with a student on one end and Mark Hopkins, his old teacher, on the other end was his ideal college. The point in it all is that personal contact and direct interest in the individual student by an instructor of lofty character is the main thing in any institution of learning.

--F. S. Groner

You can teach a student a lesson for a day; but if you can teach him to learn by creating curiosity, he will continue the learning process as long as he lives.

—Chinese Proverb

There can be no mental development without interest.

—Alfred North
Whitehead

You know that I don't believe that anyone has ever taught anything to anyone. I question that efficacy of teaching. The only thing that I know is that anyone who wants to learn will learn. And maybe a teacher is a facilitator, a person who puts things down and shows people how exciting and wonderful it is and asks them to eat.

—Carl Rogers

The main business of the school is learning. One approach to learning is to view the school and the teacher as the storehouse of all, or most, of those things worth knowing. The basic role of the school in this view is to transmit this knowledge. Another approach to learning is to teach students the process of inquiry, of critical analysis, of experimentation. The first approach stresses the status quo and views the student as a more passive participant. The second approach sees the student as an active participant who will question what he sees, who will be prepared for, and more likely to demand change in the stem.

--Samuel G.
Christie

Over the long term, basic skills only give you the right to compete against the Third World for Third World wages.

--Marc S. Tucker

You may not divide the seamless cloak of learning. There is only one subject-matter for education and that is Life in all its manifestations.

--Alfred North
Whitehead

A person learns significantly only those things which he perceives as being involved in the maintenance of, or enhancement of, the structure of self.

--Carl Rogers

All genuine learning is active, not passive. It involves the use of the mind, not just the memory. It is a process of discovery, in which the student is the main agent, not the teacher.

—Mortimer Adler

Knowledge of the past should not be the goal of education but rather learning to perform in the future tasks of life should be the aim; whether it is maintaining relationships, raising children, cooking for our families, playing a sport or building a house. Not only are increasing abilities to perform in real life the most important outcomes of education but actually engaging in tasks related to these real world challenges is the best way to learn. We don't spend much time learning the history of soccer in order to learn to play – we start playing and learn the rules, strategies and, even its history if we are really smitten by the bug, in the context of learning to play. The same is true of music and many practical skills. The content is rarely the point; content is the by-product of actually learning to perform and then improve our performance.

—Grant Wiggins

Are we forming children who are only capable of learning what is already known? Or should we try to develop creative and innovative minds, capable of discovery from the preschool age on, throughout life?

—Jean Piaget

You learn at your best when you have something you care about and can get pleasure in being engaged in.

—Howard Gardner

Most learning is not the result of instruction. It is rather the result of unhampered participation in a meaningful setting. Most people learn best by being ‘with it,’ yet school makes them identify their personal, cognitive growth with elaborate planning and manipulation.

—Ivan Illich

True education enrolls men at the cradle and graduates them at the grave.

—Unknown

Too much learning, too soon, before the child is ready and dealt out too hard is a 100% guarantee of failure both for the child as he attempts to learn, and for the school which is attempting to teach. Too little learning, too late after the learner is ready for it and needs it, and too lightly presented without depth and emphasis upon its worthwhileness, is a 100% guarantee of producing a whole new generation of mediocre achievers, regardless of their capacities and abilities.

—Genevieve B. Syverson

Students must be actively involved in constructing meaning...Learning must have utility. Often this is accomplished by linking learning to the world outside of school.

--David T. Conley

There is no such thing as learning except (as Dewey tells us) in the continuum of experience. But this continuum cannot survive in the classroom unless there is reality of encounter between the adults and the children. The teachers must be themselves and not play roles. They must teach the children and not teach ‘subjects.’ The child, after all, is avid to acquire what he takes to be the necessities of life, and the teacher must not answer him with mere professionalism and gimmickry. The continuum of experience and reality of encounter are destroyed in the public schools (and most private ones) by the very methods which form the institution itself—the top down organization, the regimentation, the faceless encounters, the empty professionalism, and so on.

—George Dennison

So while I still hate to readjust my thinking, still hate to give up old ways of perceiving and conceptualizing, yet at some deeper level I have, to a considerable degree, come to realize that these painful reorganizations are what is known as learning,

—Carl R. Rogers

If I ran a school, I'd give the average grade to the ones who gave me all the right answers, for being good parrots. I'd give the top grades to those who made a lot of mistakes and told me about them, and then told me what they learned from them.

—Buckminster Fuller

When you make the finding yourself--even if you are the last person on Earth to see the light--you will never forget it.

—Carl Sagan

Learning is not compulsory. Neither is survival.

—Dr. W. Edwards
Deming

Children want to learn to the degree that they are unable to distinguish learning from fun. They keep this attitude until we adults convince them that learning is not fun.

—Glenn Doman

One never learns to understand truly anything but what one loves.

—Goethe

Although a man be able to recite 300 odes, if he knows not how to act, of what use is his learning?

—Confucius

It may be that we should stop putting so much emphasis in our own minds on the monetary value of a college education and put more emphasis on the intangible social and cultural values to be derived from learning. The time may be coming when we will have to start accepting the ideas that education is life, not merely a preparation for it.

—Seymour E. Harris

The man who graduates today and stops learning tomorrow is uneducated the day after.

—Newton D. Baker

The trouble with learning from experience is that you never graduate.

—Doug Larson

As you progress through life, your college grades will become less and less meaningful; your need to learn will ever be with you and your skill in LEARNING HOW TO LEARN will always be important.

—Dr. Arnold O. Beckman

There is nothing worth so much as a mind well instructed.

—*Ecclesiasticus*

Not to know is bad; not to wish to know is worse.

--Nigerian Proverb

Bodily exercise, when compulsory, does no harm to the body; but knowledge which is acquired under compulsion obtains no hold on the mind.

—Plato

What we want is to see the child in pursuit of knowledge, and not knowledge in pursuit of the child.

--George Bernard Shaw

The world of learning is so broad, and the human soul is so limited in power! We reach forth and strain every nerve, but we seize only a bit of the curtain that hides the infinite from us.

--Maria Mitchell

Man's business here is to know for the sake of living, not to live for the sake of knowing.

--Frederic Harrison

Doing your child's homework is a bit like believing that they can get into shape by watching someone else exercise.

--Lawrence Kutner

The brain doesn't need to be motivated to learn any more than the heart needs to be motivated to pump blood.

—Leslie Hart

Who is wise? He that learns from everyone.

--Benjamin Franklin

That is still the case in this country for too many students, the soft bigotry of low expectations. If you don't expect them to learn, if you don't expect them to succeed - then it becomes a self-fulfilling prophecy.

—Tavis Smiley

In my day the principal concerns of university students were sex, smoking dope, rioting and learning. Learning was something you did only when the first three weren't available.

—Bill Bryson

It is never late to earn a degree, masters or doctorate. Learning has no age limit. All age groups are welcome to the act of learning.

—Lailah Gifty Akita

The enemy of learning is knowing.

—Steve Ahn

In school we learn that mistakes are bad, and we are punished for making them. Yet, if you look at the way humans are designed to learn, we learn by making mistakes. We learn to walk by falling down. If we never fell down, we would never walk.

—Robert T. Kiyosaki

Everything I need to know... I learned in kindergarten.

—Robert Fulghum

Every human is a school subject.

—Michael Bassey
Johnson

How many students ... were rendered callous to ideas, and how many lost the impetus to learn because of the way in which learning was experienced by them?

—John Dewey

Every student can learn. Just not on the same day or in the same way.

—George Evans

We need to make education so much fun that students can't help but learn.
—Sebastian Thrun

The doer alone learneth.
—Friedrich Nietzsche

What is learned in high school, or for that matter anywhere at all, depends far less on what is taught than on what one actually experiences in the place.
--Edgar Z. Friedenberg

One of the few ways parents can improve their kids' academic performance—by as much as eight points on a reading or math test—is by getting them placed in the classroom of a teacher with a good reputation....White parents are at least twice as likely as black and Latino parents to request a specific teacher. Given that the best teachers have been shown to raise students' lifetime earnings and to decrease the likelihood of teen pregnancy, this is no small intervention.
--Dana Goldstein

The development of a tree depends on where it is planted.
—Edward Joyner

If you want to earn more, learn more.
—Zig Ziglar

The science of government it is my duty to study, more than all other sciences; the arts of legislation and administration and negotiation ought to take the place of, indeed exclude, in a manner, all other arts. I must study politics and war, that our sons may have liberty to study mathematics and philosophy. Our sons ought to study mathematics and philosophy, geography, natural history and naval architecture, navigation, commerce and agriculture in order to give their children a right to study painting, poetry, music, architecture, statuary, tapestry and porcelain.
—John Adams

He who would learn without a book is like the man who tries to draw water with a sieve.
--Medieval School Poem

If you close your door to the world of books, the gates of the world of ignorance automatically opens and quickly pulls you inside!
—Mehmet Murat ildan

If you are reading in order to become a better reader, you cannot read just any book or article. You will not improve as a reader if all you read are books that are well within your capacity. You must tackle books that are beyond you, or, as we have said, books that are over your head. Only books of that sort will make you stretch your mind. And unless you stretch, you will not learn.

—Mortimer J. Adler

You cannot afford to confine your studies to the classroom. The universe and all of history is your classroom.

—Stella Adler

We must not forget that (children) can learn from Lewis Carroll as well as social studies, that they can learn from Aesop as well as the new math, that the ugly duckling need not be discarded in favor of driver education.

--Madeleine L'Engle

Anybody who can read, can learn.

--Michael Korda

The more that you read, the more things you will know. The more that you learn, the more places you'll go.

--Dr. Seuss

I have no special talent. I am only passionately curious.

—Albert Einstein

When we talk about understanding, surely it takes place only when the mind listens completely—the mind being your heart, your nerves, your ears—when you give your whole attention to it.

--J. Krishnamurti

I remind myself every morning: Nothing I say this day will teach me anything. So if I'm going to learn, I must do it by listening.

—Larry King

I believe I know why it is satisfying to me to hear someone. When I can really hear someone, it puts me in touch with him; it enriches my life. It is through hearing people that I have learned all that I know about individuals, about personality, about interpersonal relationships.

—Carl Rogers

Listening and following directions—vital prerequisites to learning.

—Gladys Andrews
Fleming

Television and the newer electronic media, if used wisely, have great positive potential for learning and development. They give children different mental skills from those developed by reading and writing.

--Patricia M. Greenfield

We now have within our grasp the possibility of making major improvements in the way people—from all economic classes and in all parts of the world—learn. We can transform the learning process, making it more attractive, more efficient and more powerful. We can assure that individuals learn to their full capacity. The key to all this lies in the computer.

--Alfred Bork

In too many schools, computers are used solely for ‘computer literacy,’ the computer equivalent of knowing the mechanics of an automobile rather than knowing how to drive it and where to go. The computer’s real strength is in providing intellectual advantages, in the same way that machines provide mechanical advantages.

--*Business Week*
Magazine

As in the military, technology-based training is now the norm in most corporations, and its promise is extraordinary. It can free teacher and student from much of the drudgery and frustration associated with drill and practice. Free to assign students to imaginative and creative programs, the teacher is also free to manage instruction more creatively. And the student, using modern computers, finds that a machine’s boundless patience, capacity to move at the student’s pace, and memory are enormous advantages.

--*Business Week*
Magazine

Technology that improves learning in the classroom must go from being the last priority to the first priority. Technology should be built into the base budget of the school and of the classroom. The school boards must be told by the superintendents and the principals that technology is something they must have. It should be the same as having a blackboard and chalk. Those are the tools of learning, and technology is now a tool of learning.

--Thomas H. Kean

Society can't afford the money which would be required to deal with this problem by drastically increasing the teacher-to-student ratio, to one-to-three or so. The only alternative, therefore, is to use technology to help teachers maximize the help and supervision which can be given to the independent work and learning of their students.

*--New York State
Business Council*

Computers have not really been integrated into the classroom; they are an adjunct, sometimes a distraction. Often the computers are put into a special lab, where a whole class will go at once to drill on them. Students who especially need the drill may not get any more time on it than their fellows do; on the other hand, students who need more drill may be sent out of the classroom to get it—in which case they may miss classroom instruction....Only in the last few years, and so far only in a relatively limited number of programs implemented in only a relatively small number of schools, have computers begun to be integrated into regular classroom work on regular academic subjects.

*--New York State
Business Council*

Advanced technology is the ideal tool for implementing a new approach to learning which optimizes student time-on-task...increases the quality and quantity of feedback...and paces instruction to student's capabilities. For such an approach to work, the school system must first make the drastic switch from 'teacher-centered, classroom-controlled instruction' to 'learner-centered, performance-paced instruction.'

--Robert K. Branson

We have the technology today to enable virtually anyone who is not severely handicapped to learn anything, at a 'grade A' level, anywhere, anytime.

--Lewis J. Perelman

To gauge the extent to which education has shortchanged the research and development of productive learning technology, consider that the Gillette Company's high-tech 'Sensor' razor blade cost some \$200 million in R & D investment over thirteen years to create. Gillette, a company whose annual revenues of more than \$3.5 billion are less than the education budgets of three-fourths of the U.S. states, thus spent more to invent a better shave than all the states combined spent during the same period to develop a better technology for teaching and learning than the thousand-year-old 'Yak in the Box' (the lecturing classroom professor).

--Lewis J. Perelman

The day may soon come when the concept of student and teacher will be obsolete. All knowledge will be acquired electronically.

—Todd Strasser

Putting a computer in front of a child and expecting it to teach him is like putting a book under his pillow, only more expensive.

--Joseph Weizenbaum

We make a mistake if we just bring a bunch of technology into a room and then think that an excellent educational program is going to materialize. It's not. We need to look at the child and base our decision on how kids learn.

--David Thornberg

With enthusiasm rising for massive open online courses, or MOOCs....the current interest in 'competency-based learning'—liberating students to earn degrees not by amassing credit hours but by preparing for assessments of particular skills at whatever pace and by whichever route they choose—is...something some reformers see as the seeds of a revolution in college education, promising ultra-convenient, self-guided, low-cost courses of study for everyone. The 'beginning of the unbundling of the American university' is how one observer has described the transformation. All it will take for students to avail themselves of this emerging opportunity is a clear sense of where they're headed, lots of self-motivation, and good access to information about what mix of skills is likely to lead to a promising career.

--Ann Hulbert

I would teach children music, physics, and philosophy; but most importantly music, for in the patterns of music and all the arts are the keys of learning.

—Plato

Euclid was hired to tutor King Ptolemy I on the subject of mathematics. The king, frustrated with the complexity of the theorems, asked Euclid if there was an easier way to approach the problems. Euclid admonished the king, 'Sire, there is no royal road to learning.'

--*Personal Selling Power*

Learning is nothing without cultivated manners, but when the two are combined in a woman, you have one of the most exquisite products of civilization.

--André Maurois

I've done a lot of surveys and interacted with a lot of students, and I was shocked to see that at 12 years old, girls are already talking about dumbing themselves down.

—Danica McKellar

The government alone can't teach our kids to learn...children can't achieve unless we raise their expectations and turn off the television sets and eradicate the slander that says a black youth with a book is acting white.

—Barack Obama

Do not expect to arrive at certainty in every subject which you pursue. There are a hundred things wherein we mortals. . . must be content with probability, where our best light and reasoning will reach no farther.

—Isaac Watts

The higher the social class of other students the higher any given student's achievement.

—James S. Coleman

He who enjoys every kind of learning and eagerly studies and hungers for still more knowledge can justly be termed a true philosopher.

—Plato

As long as high schools strive to list the number of Ivy League schools their graduates attend and teachers pile on work without being trained to identify stress-related symptoms, I fear for our children's health. I am not mollified by the alums of my daughter's school who return to tell everyone that the rigor of high school prepared them for college, making their first year easier than they'd anticipated. If they make it that far.

—Candy Schulman

The numbers are stark: One in four U.S. students will witness or experience a traumatic event before the age of 4, and more than two-thirds by age 16. These children do not—the cannot—simply close their eyes to what they've seen or experienced. With each forced eviction, each arrest of an adult in their home, each abuse to their own bodies, an instinctive trigger to 'fight or flee' is pulled over and again. Over time, a child's developing brain is changed by these repeated traumatic experiences. Areas that govern the retention of memory, the regulation of emotion, and the development of language skills are affected. The result is a brain that has structurally adapted for survival under the most stressful circumstances,—but not for success in school.

—Mary Ellen Flannery

The conquest of learning is achieved through the knowledge of languages.

—Roger Bacon

Learn one way; react. Learn many ways; understand.

—Tadeu Dias

Any child who can spend an hour or two a day, or more if he wants, with adults that he likes, who are interested in the world and like to talk about it, will on most days learn far more from their talk than he would learn in a week of school.

—John Holt

The suggestion that the normal human brain has an almost infinite capacity is important: it means that almost everyone is educable. Given enough time and the right opportunities, everyone can learn anything. It is a sad commentary on the training and teaching profession that so many people feel that they are incapable of learning; surely our teaching and instruction is at fault when we reject someone as a failure. How can we say they have not learned when we have used only a small part of the learner's mental capacity. Mea culpa.

—Julie Cotton

I succeeded at math, at least by the usual evaluation criteria: grades. Yet while I might have earned top marks in geometry and algebra, I was merely following memorized rules, plugging in numbers and dutifully crunching out answers by rote, with no real grasp of the significance of what I was doing or its usefulness in solving real-world problems. Worse, I knew the depth of my own ignorance, and I lived in fear that my lack of comprehension would be discovered and I would be exposed as an academic fraud -- psychologists call this 'impostor syndrome.'

—Jennifer Ouellette

Amusement and pleasure ought to be combined with instruction in order to make the subject more interesting. There should be games of various kinds such as a game played with different kinds of coins mixed together. There should also be problems connected with boxing and wrestling matches. These things make a pupil useful to himself and more wide awake.

—Plato

Children are failing to learn not because they lack ability, but because they lack encouragement and support. These are preventable tragedies in thousands of young lives.

—*College Board
Commission on
Pre-College
Guidance and
Counseling*

My mother made me a scientist without ever intending to. Every other Jewish mother in Brooklyn would ask her child after school: So? Did you learn anything today? But not my mother. 'Izzy,' she would say, 'did you ask a good question today?' That difference—asking good questions—made me become a scientist.

--Isidor Isaac Rabi

Do not teach him science: let him discover it. If ever you substitute authority for reason in his mind, he will stop reasoning and become the victim of other people's opinions.

--Jean Jacques Rousseau

In poor and working-class households, children are urged to stay quiet and show deference to adult authority figures such as teachers. In middle-class households, kids learn to ask critical questions and to advocate for themselves—behaviors that serve them well in the classroom.

--Dana Goldstein

Do not believe in anything simply because you have heard it. Do not believe in anything simply because it is spoken and rumored by many. Do not believe in anything simply because it is found written in your religious books. Do not believe in anything merely on the authority of your teachers and elders. Do not believe in traditions because they have been handed down for many generations. But after observation and analysis, when you find that anything agrees with reason and is conducive to the good and benefit of one and all, then accept it and live up to it.

—The Buddha

With change, you learn something. If you do the same thing over and over again, you never learn anything.

--Andrea Bocelli

You're not going to get very far in life based on what you already know. You're going to advance in life by what you're going to learn after you leave here [college].

—Charlie Munger

Nothing fails like success because we don't learn from it. We learn only from failure.

--Kenneth Boulding

Experience is an expensive school, but a fool will learn from no other.

—Japanese Proverb

The goal of assessment for learning is not to eliminate failure, but rather to keep failure from becoming chronic and thus inevitable in the mind of the learner. Duke University basketball coach Mike Krzyzewski has pointed out that the key to winning is to avoid losing twice in a row. He meant that if you lose once and fix it, you can remain confident. Losing twice, though, can raise questions, crack that confidence, and make recovery more difficult. So when learners suffer a failure, we must get them back to success as quickly as possible to restore their confidence in their capabilities. This is the emotional dynamic of assessment for learning.

—Rick Stiggins

In spite of the deep-seated craving for love, almost everything else is considered to be more important than love: success, prestige, money, power—almost all our energy is used for the learning of how to achieve these aims, and almost none to learn the art of loving.

Could it be that only those things are considered worthy of being learned with which one can earn money or prestige, and that love, which ‘only’ profits the soul, but is profitless in the modern sense, is a luxury we have no right to spend energy on?

—Erich Fromm

Do not call for Black power or green power. Call for brain power.

--Barbara Jordan

If you have told a child a thousand times and he still does not understand, then it is not the child who is the slow learner.

—Walter Barbie

There are children of color in special education who have been taken off the express train and put on local. The local never catches up with the express.

—M. Mason

There’s a growing consensus that the most important input toward student achievement is child poverty and all the factors that go along with it. Unless and until we recommit ourselves to ending child poverty and reducing inequality, not just in schools but in families and communities, I don’t see us reinventing ourselves. We can’t put the cart before the horse. We’ve spent too long at this point saying, ‘If we improve schools we’ll erase poverty.’ I think it’s really time to try the other way around.

—Anya Kamenetz

Failure is success if we learn from it.

--Malcolm S. Forbes

Enjoy failure and learn from it. You can never learn from success.

--James Dyson

What are some possible explanations for such extraordinary performance by Asian Americans? Several come readily to mind, but certainly require further exploration:

- Parents who value their children's education so much that they inculcate the centrality of that education in to every aspect of their everyday lives.
- Parents who actively monitor and supplement what the schools teach their children.
- Parents, and therefore children, who believe that academic effort and hard work are rewarded with accomplishment.
- Parents, and therefore students, who support the schools.
- Parents, and therefore students, who believe in taking the most challenging courses in the greatest numbers.

—Daniel B. Taylor

Black people need to work on their speaking and writing skills to avoid the pitfalls of exploitation, exclusion, and economic illiteracy. Knowing the language of power and finance is gaining clout, not selling out.

--Gerrard McClendon

We know that math ability is universal, and interest in math is spread pretty much equally through the population, and we see there are almost no low-income, high-performing math students. So we know that there are many, many students who have the potential for high achievement in math but who have not had opportunity to develop their math minds, simply because they were born to the wrong parents or in the wrong zip code.

—Daniel Zaharopol

What is the most important thing one learns in school? Self-esteem, support, and friendship.

—Terry Tempest
Williams

Teens think listening to music helps them concentrate. It doesn't. It relieves them of the boredom that concentration on homework induces.

—Marilyn vos Savant

We do not learn; and what we call learning is only a process of recollection.

—Plato

The pleasures of learning are indeed pleasures. But in fact the word should be changed. The true name is happiness. There are three other types of happiness, superior to that of learning: the happiness of love fulfilled; the happiness of serving mankind; and the happiness of creation. Though it is beneath these, learning is still a great happiness, and can be a help toward the attainment of those others; and it is an essential part of a complete life. No learner has ever found that he ran short of subjects to explore. But many people who avoided learning, or abandoned it, find that life is drained dry. They spend thirty years in a club chair looking glumly out at the sand and ocean; in a hotel lounge gossiping about the other inmates; in a porch swing awaiting for somebody to drive down the road. But that is not how to live. The chief aim of education is to show you, after you make a livelihood, how to enjoy living; and you can live longest and best and most rewardingly by attaining and preserving the happiness of learning.

--Gilbert Highet

A happy life is one spent in learning, earning and yearning.

--Lillian Gish

In my opinion, the close emotional ties of an all-round good family provide the strongest stimulus to mental development.

--Benjamin Spock

If it is a mistake of the head and not the heart don't worry about it, that's the way we learn.

—Earl Warren

For the unlearned, old age is winter; for the learned, it is the season of the harvest.

--Hasidic Saying

By the time you're eighty years old you've learned everything. You only have to remember it.

--George Burns

I love being over 50. I learn something new every day. And forget 5 others.

—Sue Fitzmaurice

The most important thing I learned in school was how to touch type.

—Joichi Ito

The excitement of learning separates youth from old age. As long as you are learning you're not old.

—Rosalyn S. Yalow

Experts tell us that 90% of all brain development occurs by the age of five. If we don't begin thinking about education in the early years, our children are at risk of falling behind by the time they start Kindergarten.

—Robert. L. Ehrlich

I cannot understate the ability to handle classical texts such as Shakespeare.

—Louise Jameson

I don't read fiction to study the art of fiction, but simply because I like stories. Yet there is a learning process going on. Every book you pick up has its own lesson or lessons, and quite often the bad books have more to teach than the good ones.

—Stephen King

The single biggest predictor of high academic achievement and high ACT scores is reading to children. Not flash cards, not workbooks, not fancy preschools, not blinking toys or computers, but Mom or Dad taking the time every day or night (or both) to sit and read them wonderful books.

—*First Grade Fun Times*

A love of books, of holding a book, turning its pages, looking at its pictures, and living its fascinating stories goes hand-in-hand with a love of learning.

—Laura Bush

Books are hindrances to persisting stupidity.

—Spanish Proverb

Another major problem in education is the passivity of the students. Students spend far too much time sitting in classrooms only half attentive to teacher's talk...They often tune out instruction completely....Research shows again and again that the more students are actively involved in mastering a subject, the more quickly they will learn it....Modern technology can help free students from this cycle of passivity.

--Dr. Terrel Bell

The best students are those who never quite believe their professors.

—Jim Collins

Whoever ceases to be a student has never been a student.

—George Iles

Do question, even the basics!

You will be a fool for once!

If you don't, you will be, for a lifetime..

—Himmilicious

If you think you are worth what you know, you are very wrong. Your knowledge today does not have much value beyond a couple of years. Your value is what you can learn and how easily you can adapt to the changes this profession brings so often.

—Jose M. Aguilar

Knowledge is expanding so rapidly that it is important for today's youth to master modes of learning rather than master accumulations of facts, many of which may be obsolete by the time they finish school.

—Jerome Bruner

We learn from experience that men never learn anything from experience.

—George Bernard Shaw

The conventional view that education pays because students learn—assumes that the typical student acquires, and retains, a lot of knowledge. She doesn't. Teachers often lament summer learning loss: students know less at the end of summer than they did at the beginning. But summer learning loss is only a special case of the problem of fade-out: Human beings have trouble retaining knowledge they rarely use. Of course, some college graduates use what they've learned and thus hold onto it—engineers and other quantitative types, for example, retain a lot of a math. But when we measure what the average college graduate recalls years later, the results are discouraging, to say the least.

In 2003, the United States Department of Education gave about 18,000 Americans the National Assessment of Adult Literacy. The ignorance it revealed is mind-numbing. Fewer than a third of college graduates received a composite score of 'proficient'— and about a fifth were at the 'basic' or 'below basic' level. You could blame the difficulty of the questions—until you read them. Plenty of college graduates couldn't make sense of a table explaining how an employee's annual health insurance costs varied with income and family size, or summarizes the work experience requirements in a job ad, or even use a newspaper schedule to find when a television program ended. Tests of college graduates' knowledge of history, civics, and science have had similar dismal results.

—Bryan Caplan

The most focused study of education's effect on applied reasoning, conducted by Harvard's David Perkins in the mid 1980s, assessed students' oral responses to questions designed to measure informal reasoning, such as 'Would a proposed law in Massachusetts requiring a five-cent deposit on bottles and cans significantly reduce litter?' The benefit of college seemed to be zero: Fourth-year students did no better than first-year students.

—Bryan Caplan

What the small boy needs to know is that there are men in this world who are like him, black men, African-American men, who read and write and find the whole process of academics something valuable....The epidemic of academic failure in the African-American male population is not going to stop unless we, African-American men, begin to do the job that we can do.

--Spencer Holland

It is better to create than to learn! Creating is the essence of life.

—Julius Caesar

To be surprised, to wonder, is to begin to understand.

—Jose Ortega y Gasset

Learning how to learn is life's most important skill.

—Tony Buzan

The deepest sin against the human mind is to believe things without evidence.

--Thomas Henry Huxley

Capitalize on students' existing needs. Students learn best when incentives for learning in a classroom satisfy their own motives for enrolling in the course. Some of the needs your students may bring to the classroom are the need to learn something in order to complete a particular task or activity, the need to seek new experiences, the need to perfect skills, the need to overcome challenges, the need to become competent, the need to succeed and do well, the need to feel involved and to interact with other people. Satisfying such needs is rewarding in itself, and such rewards sustain learning more effectively than do grades. Design assignments, in-class activities, and discussion questions to address these kinds of needs.

—Donelson R. Forsyth
and
James H.
McMillan

Childhood is not a race to see how quickly a child can read, write and count. It is a small window of time to learn and develop at the pace that is right for each individual child. Earlier is not better.

—Magda Gerber

Large skepticism leads to large understanding. Small skepticism leads to small understanding. No skepticism leads to no understanding.

—Xi Zhi

Make students active participants in learning. Students learn by doing, making, writing, designing, creating, solving. Passivity dampens students' motivation and curiosity. Pose questions. Don't tell students something when you can ask them. Encourage students to suggest approaches to a problem or to guess the results of an experiment. Use small group work.

—Ann F. Lucas

Eight characteristics emerge as major contributors to student motivation:

Instructor's enthusiasm

Relevance of the material

Organization of the course

Appropriate difficulty level of the material Active involvement of students

Variety

Rapport between teacher and students

Use of appropriate, concrete, and understandable examples

—Edmund J. Sass

One of the reasons mature people stop learning is that they become less and less willing to risk failure.

—John W. Gardner

No one who cannot rejoice in the discovery of his own mistakes deserves to be called a scholar.

—Donald Foster

There are three kinds of men. The one that learns by reading. The few who learn by observation. The rest of them have to pee on the electric fence to see for themselves.

--Will Rogers

Good judgement comes from experience—and experience? Well, that comes from poor judgement.

—Internet Meme

Study lends a kind of enchantment to all our surroundings.

—Honore de Balzac

Stupid is forever; ignorance can be fixed.

—Don Wood

It is among the commonplaces of education that we often first cut out the living root and then try to replace its natural functions by artificial means. Thus we suppress the child's curiosity and then when he lacks a natural interest in learning he is offered special coaching for his scholastic difficulties.

—Alice Duer Miller

Nobody can decide for himself whether he is going to be a human being. The only question open to him is whether he will be an ignorant undeveloped one or one who has sought to reach the highest point he is capable of attaining.

—Robert Maynard
Hutchins

Toddlers cannot learn when we break the flow of conversations by picking up our cellphones or looking at the text that whizzes by our screens.

—Kathy Hirsh-Pasek

My father was pretty well fixed, and I being the only male son he tried terribly hard to make something out of me. He sent me to about every school in that part of the country. In some of them I would last for three or four months. I got just as far as the fourth reader when the teachers wouldn't seem to be running the school right, and rather than have the school stop I would generally leave.

Then I would start in at another school, tell them I had just finished the third reader and was ready for the fourth. Well, I knew all this fourth grade by heart, so the teacher would remark:

'I never see you studying, yet you seem to know your lessons.' I had that education thing figured down to a fine point. Three years in *McGuffey's Fourth Reader*, and I knew more about it than McGuffey did.

—Will Rogers

I have regretted all my life that I did not at least take a chance on the fifth grade. It would certainly come in handy right now, and I never go through a day that I am not sorry for the idea I had of how to go to school and not learn anything.

—Will Rogers

A man only learns by two things, one his reading and the other is association with smarter people.

—Will Rogers

If you want your children to be intelligent, read them fairy tales. If you want them to be more intelligent, read them more fairy tales.

—Albert Einstein

Learning to read is probably the most difficult and revolutionary thing that happens to the human brain and if you don't believe that, watch an illiterate adult try to do it.

--John Steinbeck

A scholar knows no boredom.

—Jean Paul Friedrich
Richter

Learning became her. She loved the smell of the book from the shelves, the type on the pages, the sense that the world was an infinite but knowable place. Every fact she learned seemed to open another question, and for every question there was another book.

--Robert Goolrick

I think the prime reason for existence, for living in this world, is discovery.

—James Dean

I loathed every day and regret every day I spent in school. I like to be taught to read and write and add and then be left alone.

—Woody Allen

If your child can do advanced math, speak 3 languages, or receive top grades, but can't manage their emotions, practice conflict resolution, or handle stress, none of that other stuff is really going to matter.

—Internet Meme

The best way to become acquainted with a subject is to write about it.

—Benjamin Disraeli

Time is important for learning. There is a direct relationship between achievement and active learning time. Although the time needed for a student to master a concept or skill varies according to the student's rate of learning and other factors, the more time a student spends in active learning, the more that student will learn.

There are three levels of learning time:

Time allocated for instruction (allocated time).

Time actually spent on instruction (instructional time).

Time the student is actively engaged in learning (time on task).

Frequently, time on task is considerably less than allocated time. Therefore, within the framework of allocated time, teachers should plan their classroom activities and homework activities to increase actual instructional time and time on task. Teachers should work to increase academic learning time by creating a system of rules and procedures that facilitate clerical and housekeeping tasks and that deals with disruptions and disciplinary problems. Teachers may also have to allocate extra time through homework, individualized assignments, or other means so their students can master the required subject matter.

—Dan L. Miller

ENTERTAINMENT FIELD TRIPS

All field trips taken during school hours are to be valuable, educational experiences for students, and the field trips are to be directly related to the District #87 curriculum. Field trips for the purpose of student entertainment or reward are not to be taken during school hours. Field trips to locations such as Great America, Enchanted Castle, Disney on Ice, Kane County Cougars, and roller skating parties can be enriching experiences for students, but trips such as these are to be taken only outside of school hours.

The intent of this procedure is to place a premium on valuable academic time and to not reduce the time students spend in academic pursuits in exchange for endeavors that do not promote learning related to the District #87 curriculum.

The only exception to this procedure is the one-day, 8th grade graduation trip, which is usually a visit to the City of Chicago and often includes a boat tour. This trip provides students with a valuable cultural experience and is a fitting activity to culminate their years of elementary education.

—Dan L. Miller

EXPERIENTIAL LEARNING

At-risk students are often unprepared or unwilling to accept responsibility in school, at home, or in the community. Responsibility may be defined in terms of a student's ability to take initiative and follow through on an assignment. Young people are rarely given true opportunities to take responsibility outside the classroom setting. The involvement of at-risk students in a school or community project can develop a sense of group and individual pride. It can foster self-esteem and responsibility and can serve as an activity that develops a 'family' feeling among classmates. It can also develop an esprit de corps within the class and help make the school experience an enjoyable one. Involvement in a service project will also give students an opportunity to use skills learned in the classroom and put them to practical use. School or community service projects help the at-risk class make a significant contribution to the school or community and also put the students in contact with local adults who have developed the skills necessary to make them successful in their community and who could serve as positive role models for the students. Participating in community or school service projects helps students apply their academic knowledge to real-life situations. Students can also be encouraged to explore and identify changes in their attitudes toward themselves and others. Ideally, they should be placed in a helping relationship with persons who are actually in need of assistance and who will appreciate receiving help.

In setting up community or school service projects, it is important to:

Sell the program to students by describing the need and specify why they should be involved by pointing out what others will gain from their services;

Hold training sessions that will enable students to carry out volunteer work before they begin—e.g., on active listening skills or teaching strategies;

Periodically arrange time throughout the school year for reflection on the volunteer experience; and

Make celebrations of accomplishment an integral part of the community/school service program.

These opportunities can lead to feelings of enhanced competence and self-esteem for student volunteers. Such service experiences can also assist students in making the transition from school to the world of work.

—Dan L. Miller

THE PURPOSE OF GRADES

There are many purposes for using grades in the school program. Grades provide incentives to learn for many students. Most students are motivated to attain the highest grades and to receive the recognition that often accompanies such grades, and they are motivated to avoid the lowest grades and the negative outcomes that sometimes are associated with those grades. Grades also provide information to students for self-evaluation, for analysis of strengths and weaknesses, and for creating a general impression of academic promise, all of which may enter into educational planning. Finally, grades are used to communicate students' performance levels to others who want to know about past achievement or want to forecast future academic success. Teachers in subsequent classes use grades in these ways. The most recognized purpose of grades, however, is to communicate the achievement status of students to their parents. The grade, then, symbolizes the extent to which a student has attained the important instructional goals of the reporting period for which the grade is assigned.

—Dan L. Miller

GRADING ON THE CURVE

The curve referred to in the name of this method is the normal, bell-shaped curve that is often used to describe the achievements of individuals in a large heterogeneous group. The idea behind this method is that the grades in a class should follow a normal distribution, or one nearly like it. Under this assumption, the teacher determines the percentage of students who should be assigned each grade symbol so that the distribution is normal in appearance. For example, the teacher may decide that the percentages of A through F grades in the class should be distributed as follows:

6% of the students will receive an A
22% of the students will receive an B
44% of the students will receive an C
22% of the students will receive an D
6% of the students will receive an F

Grading on the curve is a simple method to use, but it has serious drawbacks. The fixed percentages are nearly always determined arbitrarily, and the percentages do not account for the possibility that some classes are superior and others are inferior relative to the phantom 'typical' group the percentages are intended to represent. Grading on a curve also takes all incentive away from lower-performing students.

They soon realize that their grades have little to do with how well they master course content. They must 'beat' higher-performing students to succeed. No matter how hard they work, their performance will always be evaluated relative to that of higher-performing students.

The use of the normal curve to measure student achievement in a single classroom is simply inappropriate and is not to be used.

—Dan L. Miller

SELF-ESTEEM DEVELOPMENT

At-risk students have established patterns of failure in school. They generally have a low level of self-esteem and very little confidence in their ability to succeed in school. They also often engage in negative social behaviors. Students who have a better understanding of themselves, feel confident in their abilities, and can make decisions that benefit them in a positive way will have a better chance of succeeding in school. Therefore, a part of the At-Risk Program is a component to address family and peers, self-discipline, resolving conflicts, and self-respect. The classroom teacher working collaboratively with the school counselor will carry out a specific self-esteem program. Together they will plan and deliver a program intended to address the self-esteem needs of the at-risk children in the program.

There are few characteristics which will have as significant an impact on whether a student fails or succeeds in school as how the student feels about himself or herself. By helping the at-risk student feel better about himself or herself the teacher can strengthen the child's belief that he or she can succeed, which in turn should lead to better performance in all areas of the child's life, including school. Following are strategies and activities which will facilitate the building of self esteem in children: Plan for success. Put students in situations where success is probable. When it is obvious that a learning goal is too difficult, break the process into a series of smaller, simpler steps.

Take time to meet with the 'at-risk' student on a daily basis to discuss the successes of the day. Discuss why the success took place, how it made him or her feel, and how it could be duplicated.

Provide a classroom environment which is warm and supportive. In such an environment, failure is not feared but considered a part of the learning process.

Accept all students and let them know you care about them. Students will feel important when teachers demonstrate through their actions that they care.

Accentuate the positive. Give students praise when it is earned. Help the student recognize and appreciate accomplishments. Draw attention to the student's strengths and how these strengths are being utilized. Contact parents when the student is doing well.

Have reasonable goals and expectations for achievement within the classroom. Anxiety and frustration are reduced when expectations are clearly stated and are within the reach of the student's ability.

Choose a 'Student of the Week.' Give each child an opportunity to discuss what it is they feel good about. The student may choose to display schoolwork, family photos, creative work, certificates, etc.

Have students keep a journal of 'positive thoughts' that relate to school, their families, outside activities, etc.

Declare an 'I'm Special Day' when students can focus on and explore the attributes that make them unique.

Realize that you will affect your pupils' self concept each and every day. HOW you affect their self concept is your choice.

—Dan L. Miller

SUMMER READING/SUMMER FUN

Educational research has demonstrated that students who engage in no academic pursuits during the summer months actually regress and lose learning. These students then experience a 'catch up' period of time when they return to school in the fall. It is very important, therefore, that students participate in some type of summer reading program during the long layoff from school. All public libraries offer excellent summer reading programs for young people. These programs are fun, they provide incentives for reading and they get young people into the library on a regular basis. Our students in grades 2-8 also have extensive reading lists of books that are best suited to their reading levels. It would be very good for them to continue reading books from their reading lists over the summer by checking books out of the public library.

Whatever parents can do to help students structure their reading over the summer would go a long way toward helping students 'keep up' and avoiding having to 'catch up' once school starts in the fall. Remember, as Mark Twain said, 'The man who does not read good books has no advantage over the man who can't read them.'

—Dan L. Miller

Schools themselves aren't creating the opportunity gap: the gap is already large by the time children enter kindergarten and does not grow as children progress through school. The gaps in cognitive achievement by level of maternal education that we observe at age 18—powerful predictors of who goes to college and who does not—are mostly present at age 6 when children enter school. Schooling plays only a minor role in alleviating or creating test score gaps.

—Robert D. Putnam

Stressful conditions from outside school are much more likely to intrude into the classroom in high poverty schools. Every one of ten stressors is two to three times more common in high poverty schools—Student hunger, unstable housing, lack of medical and dental care, caring for family members, immigration issues, community violence and safety issues.

—Robert D. Putnam

There is no study that is not capable of delighting us, after a little application to it.

—Alexander Pope

When I was a child, I thought grown-ups and teachers knew the truth, because they told me they did. It took years for me to discover that the first step in finding out the truth is to begin unlearning almost everything adults had taught me, and to start doing all the things they'd told me NOT to do. Their main pitch was that achievement equaled happiness, when all you had to do was study rock stars, or movie stars, or them, to see that they were mostly miserable. They were all running around in mazes like everyone else.

—Anne Lamott

Middle school students learn a whole lot better when they are not being lectured to, being directed, forced, or ordered, but when choice is given and learning is interactive. Traditional classrooms in our society today define teacher and the classroom in general as a straight-answer, fact-feeding, dictatorship that cares little for the opinions and interests of the pupils, and that teaches little about the reasons behind the facts. Schools are meant to prepare kids for life and make them more apt to be successful in their life. One would suppose that the government having authority over public schooling would want the generations of the future to be more successful in life, thus feeding the needs of the economy and the requirements of democracy, the spread of freedom, the reduction of discrimination in all forms, and exercising the rights and morality of citizens. One would assume that the government—wanting such a society—would encourage the development of these attributes through schooling. However as we look at the teaching of present schools, we see suspension of constitutional rights, undemocratic classrooms, and the implementation the fact-feeding teaching methods and passive roles for students. Now maybe it's just me, but I would have to think that we should be promoting the opposite of these things. Am I wrong?

—Anonymous 8th Grader
quoted by Nancy
Doda & Trudy
Knowles

The key to being a good teacher is to know the kids. You have to know every single one and have a relationship with every single one. I think that one thing that really allows me to work hard is knowing that my teacher knows where I am in life at that moment. If they don't know me, I will tend not to work as hard for them.

—Anonymous Student
quoted by Nancy
Doda & Trudy
Knowles

Teacher expectations of students play a powerful role in student learning and achievement. In middle schools, it seems clear...that we have yet to dismantle the 'hormones with feet' image of the young adolescent learner. As middle school educators endeavor to advance student learning and achievement and offer equally engaging learning to all young people, they will need to redefine the capacity of this age group, recognizing that puberty does not necessarily place young adolescent learners at intellectual peril.

—Nancy Doda & Trudy
Knowles

Eighth graders need a special form of teaching. We could never learn about a subject by reading a textbook. We need it explained and compared to life. It would help if the learning was fun.

—Anonymous Middle
School Student
quoted by Nancy
Doda & Trudy
Knowles

Like informal peer tutors, friends encourage and help one another on homework and other school projects and activities. In cooperative groups, for instance, students who work with their friends master new learning more readily than students who work with classmates who are not their friends. Friends are a 'unique context' for learning in that they talk to each other more, take more time to work out their differences, and compromise more readily than children who are not friends.

—Willard Hartrup

STUDENTS ASKED MIDDLE GRADES EDUCATORS TO STRIVE TO:

- Know us as people and as learners.
- Respect us as people/learners with important ideas and contributions.
- Understand our developmental nature and associated challenges.
- Know that development does not diminish us.

- Find ways to make the learning engaging.
- Teach us in different ways so we can all learn.
- Listen to us.
- Let us know you.
- Be kind.
- Be honest.
- Be hopeful and encouraging.
- Enjoy us!

— Nancy Doda & Trudy
Knowles

We require them to follow rigid rules and, in schools particularly, we cause children to learn in ways which are the very antithesis of actual learning. We force them to remember and regurgitate large quantities of rote-remembered facts for certain rituals that we call ‘examinations,’ and those who have the highest disgorgitive capacities are considered the most intelligent and the most brilliant and so are the most highly rewarded.

—Ashley Montagu

The true lover of learning then must from his earliest youth, as far as in him lies, desire all truth.

—Plato

When I was eighteen or twenty, I knew everything except what I wanted. I knew all about people, and poetry, and love, and music, and politics, and baseball, and history, and I played pretty good jazz piano. And then I went traveling, because I felt that I might have missed something and it would be a good idea to learn it before I got my master's degree. (...) And the older I grew, and the farther I traveled, the younger I grew and the less I knew. I could feel it happening to me. I could actually walk down a dirty street and feel all my wisdom slipping away from me, all the things I wrote term papers about.

—Peter S. Beagle

When one is young one must see things, gather experience, ideas; enlarge the mind.

—Joseph Conrad

A library is a place where you learn what teachers were afraid to teach you.

—Alan M. Dershowitz

Concerned about achievement? Current research shows that school libraries are key to learning. In the largest study of its kind, Rutgers University professors Ross Todd and Carol Kuhlthau revealed that 99.4% of students ‘indicated that the school library and its services, including roles of school librarians, have helped them...with their learning.’ Data revealed that libraries are dynamic agents of learning and demonstrated the school library’s role ‘as an agent for individualized learning, knowledge construction, and academic achievement.

—Joyce Kasman Valenza

Collaboration is the key to getting the most out of a school library. Teacher-librarians who plan and work closely with other teachers, integrating information skills and strategies with classroom instruction through flexible scheduling and innovative teaching approaches enhance student learning.

—Ken Haycock

What is the value of libraries? Through lifelong learning, libraries can and do change lives, a point that cannot be overstated.

—Michael E. Gorman

The library is the temple of learning, and learning has liberated more people than all the wars in history.

--Carl Rowan

I’m completely library educated. I’ve never been to college. I went down to the library when I was in grade school in Waukegan, and in high school in Los Angeles, and spent long days every summer in the library. I used to steal magazines from a store on Genesee Street, in Waukegan, and read them and then steal them back on the racks again. That way I took the print off with my eyeballs and stayed honest. I didn’t want to be a permanent thief, and I was very careful to wash my hands before I read them. But with the library, it’s like catnip, I suppose: you begin to run in circles because there’s so much to look at and read. And it’s far more fun than going to school, simply because you make up your own list and you don’t have to listen to anyone. When I would see some of the books my kids were forced to bring home and read by some of their teachers, and were graded on—well, what if you don’t like those books?

—Ray Bradbury

We awaken by asking the right questions.

—Suzy Kassem

We learn to do something by doing it. There is no other way.

—John Holt

Play is our brain's favorite way of learning.

—Dianne Ackerman

Good judgement comes from experience. Experience? Well, that comes from poor judgement.

—Internet Meme

[Meritocracy] turns elite families into business enterprises, and children into over-worked, inauthentic success machines, while producing an economy that favors the super-educated and blights the prospects of the middle class, which sinks toward the languishing poor...immense investments in money and time...well-off couples make in their children. By kindergarten, the children of elite professionals are already a full two years ahead of middle-class children, and the achievement gap is almost unbridgeable.

—Daniel Markovits

There are a growing number of parents and educators who believe mandatory homework needlessly robs children of their after-school time. We believe time at home should be spent pursuing passions, connecting with friends and family, playing and engaging in physical activity. In some families, it might be time needed to take care of a sibling, work a job, or take care of their own child. Let us leave children to the activities they and their family choose or find necessary.

—Lisa Nielsen

I read for pleasure and that is the moment I learn the most.

—Margaret Atwood

If a child can do advanced math, speak 3 languages, or receive top grades, but can't manage their emotions, practice conflict resolution or handle stress, none of that other stuff is really going to matter.

—*Appelbaum Training
Institute*

Embrace hard things and your mind will blossom.

—Japanese Proverb

To learn means to accept the postulate that life did not begin at my birth. Others have been here before me, and I walk in their footsteps. The books I have read were composed by generations of fathers and sons, mothers and daughters, teachers and disciples. I am the sum total of their experiences, their quests. And so are you.

—Elie Wiesel

Ancora Imparo. (I am still learning.)

—Michelangelo at age 87

Among the many purposes of schooling, four stand out to us as having special moral value: to love and care, to serve, to empower, and, of course, to learn.

—Andy Hargreaves and
Michael Fullen

Learning is good in and of itself...the mother of the Jewish ghettos of the east would pour honey on a book so that the children would know that learning is sweet. And the parents who settled hungry Kansas would take their children in from the fields when a teacher came.

—George H. W. Bush

The best thing for being sad...is to learn something. That's the only thing that never fails. You may grow old and trembling in your anatomies, you may lay awake at night listening to the disorder of your veins...you may see the world devastated by evil lunatics...there is only one thing for it then—to learn.

—T. H. White

It is important that students bring a certain ragamuffin, barefoot irreverence to their studies; they are not here to worship what is known, but to question it.

--Jacob Bronowski

Kids don't start at the same place, they don't learn in the same way, and they don't learn at the same pace.

—Linda
Darling-Hammond

The teachers' working conditions are the students' learning conditions.

—Dave Eggers, Daniel
Moulthrop, and
Ninive Clements
Calegari

The answers aren't important really...what's important is—knowing all the questions.

—Zilpha Keatley Snyder

We teach what we like to learn and the reason many people go into teaching is vicariously to re-experience the primary joy experienced the first time they learned something they loved.

—Stephen Brookfield

It is not the *IQ* but the *I Will* that is most important in education.

—Unknown

I have found nothing more toxic to a healthy learning environment than an overdose of constant criticism.

—Roland S. Barth

Of course class size is important! You have to find the child to teach the child.

—Unknown

To teach is to learn.

--Japanese Proverb

To teach is to learn twice.

--Joseph Joubert

When teachers have a low expectation for their children's learning, the children seldom exceed their expectation. This is a self-fulfilling prophecy.

—John Niemeyer

The mind is like the stomach. It is not how much you put into it that counts, but how much it digests.

—Albert Jay Nock

Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity.

—General George S.
Patton

Quality schoolwork...can only be achieved in a warm, supportive classroom environment. It cannot exist if there is an adversarial relationship....Above all, there must be trust.

—William Glasser

The only thing you need to know about a teacher is whether the kids are learning.

—Chester Fine, Jr.

In the education of children there is nothing like alluring the interest and affection; otherwise you only make so many asses laden with books.

—Michel de Montaigne

To be a teacher in the right sense is to be a learner. I am not a teacher, only a fellow student.

—Søren Kierkegaard

Good teachers never teach anything. What they do is create the conditions under which learning takes place.

—S. I. Hayakawa

When I think back on my favorite teachers, I don't remember anymore much of what they taught me, but I sure remember being excited about learning it. What has stayed with me are not the facts they imparted, but the excitement about learning they inspired.

—Thomas L. Friedman

You cannot get educated by this self-propagating system in which people study to pass exams, and teach others to pass exams, but nobody knows anything. You learn something by doing it yourself, by asking questions, by thinking, and by experimenting.

—Richard Feynman

Learn everything you can, anytime you can, from anyone you can—there will always come a time when you will be grateful you did.

—Sarah Caldwell

Intelligence is not something fixed, but rather a process of learning from the world. Smart is not infinite. Growing is infinite.

—Vironika Tugaleva

Allowing children to learn about what interests them is good, but helping them do it in a meaningful, rigorous way is better. Freedom and choice are good, but a life steeped in thinking, learning, and doing is better. It's not enough to say, 'Go, do whatever you like.' To help children become skilled thinkers and learners, to help them become people who make and do, we need a life centered around those experiences. We need to show them how to accomplish the things they want to do. We need to prepare them to make the life they want.

—Lori McWilliam Pickert

In my life,
I've lived,
I've loved,
I've missed,
I've hurt,
I've trusted,
I've made mistakes,
But most of all,
I've learned.

—Internet Meme

As long as you are learning, you are not failing.

—Bob Ross

To learn how to do, we need something real to focus on—not a task assigned by someone else, but something we want to create, something we want to understand. Not an empty exercise but a meaningful, self-chosen undertaking.

—Lori McWilliam Pickert

The philosophy of project-based homeschooling—this particular approach to helping children become strong thinkers, learners, and doers—is dependent upon the interest and the enthusiastic participation and leadership of the learners themselves, the children.

—Lori McWilliam Pickert

All men who have turned out worth anything have had the chief hand in their own education.

—Sir Walter Scott

It is hard not to feel that there must be something very wrong with much of what we do in school, if we feel the need to worry so much about what many people call 'motivation'. A child has no stronger desire than to make sense of the world, to move freely in it, to do the things that he sees bigger people doing.

—John Holt

The ultimate goal of the educational system is to shift to the individual the burden of pursuing his own education. This will not be a widely shared pursuit until we get over our odd conviction that education is what goes on in school buildings and nowhere else.

—John W. Gardner

Adding FUN to learning creates the best educational experience possible.

—Tamara L. Chilver

Children learn from anything and everything they see. They learn wherever they are, not just in special learning places.

—John Holt

Children are not only extremely good at learning; they are much better at it than we are.

—John Holt

The greatest thing you'll ever learn is just to love and be loved in return.

—Eden Ahbez

You don't learn to walk by following rules. You learn by doing, and by falling over.

—Richard Branson

Being a student is easy. Learning requires actual work.

—William Crawford

The pervasiveness of language in the teaching of all subjects and the close ties of oral and written language to thinking suggest that language across the curriculum is a primary concept in developing thinking skills. A student articulate in oral and written language has an indispensable tool for learning in all curricular areas: the ability to give shape to thought through language is a skill used in every area, not just in the language arts. Thus, language across the curriculum is not just another trendy phrase. It is, rather, a real base of thinking and learning.

—Charles Suhor

All words, like all real-world objects and events, can be placed in categories. In fact, the ability of the human mind to categorize, to examine the similarities and differences between two or more concepts, to draw relationships, is what enables humans to learn. Nothing can be learned in isolation. Try to think of anything you have ever learned and how you learned it and you will quickly recollect that you learned it in relation to something you already knew. You categorized it. You might have learned the meaning of lavender in relation to your knowledge of blue or red or purple or pink....A child may not know the meaning of mammoth but can be helped to relate it to big, large, huge, and gigantic. The meaning of *Albasa* will remain a mystery unless you are able to relate it to things already known—that is, to categorize it.

—Dale D. Johnson

Every place I go is my class room. Every person I meet is my teacher. Every book I read is my textbook. From some I learn what is worth repeating and from others I understand what is to be avoided, but I am always studying. My education does not end at 3 PM or for summer vacation or when I reach a certain age. I am home-schooled, Watch me learn.

—April Noursre

In centuries past, you'd have to apply to a guild to learn how to be a blacksmith, a carpenter, a writer. But now, YouTube videos and tutorials abound for everything from coding and leather tanning to editing and embroidery. Honestly, there's no reason you can't keep learning—and you should.

—Fernando Gros

'Special' classes, such as music—as well as periods like recess, physical education, and even lunch—provide children with important opportunities for emotional growth and independent learning. For many children, they are what make school bearable.

—Erika Christakis

Multiple studies have shown that providing children with nature-based experiences reduces the frequency of ADHD symptoms in both the immediate and longer terms. Another study found that children who received science instruction outdoors learned more than those who received it only in a classroom. Yet despite what we know about nature's positive impact on mental health, attention span, academic outcomes, physical fitness, and self-regulation, outdoor time is too often seen as a quirky and marginal add-on, rather than as central to the learning process itself.

—Erika Christakis

It's the questions we can't answer that teach us the most. They teach us how to think. If you give a man an answer, all he gains is a little fact. But give him a question and he'll look for his own answers.

—Patrick Rothfuss

Teach your scholar to observe the phenomena of nature; you will soon rouse his curiosity, but if you would have it grow, do not be in too great a hurry to satisfy this curiosity. Put the problems before him and let him solve them himself. Let him know nothing because you have told him, but because he has learnt it for himself. Let him not be taught science, let him discover it. If ever you substitute authority for reason he will cease to reason; he will be a mere plaything of other people's thoughts.

—Jean-Jacques Rousseau

The main reason I became a teacher is that I like being the first one to introduce kids to words and music and people and numbers and concepts and idea that they have never heard about or thought about before. I like being the first one to tell them about Long John Silver and negative numbers and Beethoven and alliteration and ‘Oh, What a Beautiful Morning’ and similes and right angles and Ebenezer Scrooge. . . Just think about what you know today. You read. You write. You work with numbers. You solve problems. We take all these things for granted. But of course you haven’t always read. You haven’t always known how to write. You weren’t born knowing how to subtract 199 from 600. Someone showed you. There was a moment when you moved from not knowing to knowing, from not understanding to understanding. That’s why I became a teacher.

—Phillip Done

We can best help children learn, not by deciding what we think they should learn and thinking of ingenious ways to teach it to them, but by making the world, as far as we can, accessible to them, paying serious attention to what they do, answering their questions—if they have any—and helping them explore the things they are most interested in.

—John Holt

The most important attitude that can be formed is that of desire to go on learning.

—John Dewey

Other people may be there to help us, teach us, guide us along our path, But the lesson to be learned is always ours.

—Melody Beattie

Life offers its wisdom generously. Everything teaches. Not everyone learns.

—Rachel Naomi Remen

If you teach a man anything, he will never learn.

—George Bernard Shaw

Over the years, I have noticed that the child who learns quickly is adventurous. She’s ready to run risks. She approaches life with arms outspread. She wants to take it all in. She still has the desire of the very young child to make sense out of things. She’s not concerned with concealing her ignorance or protecting herself. She’s ready to expose herself to disappointment and defeat. She has a certain confidence. She expects to make sense out of things sooner or later. She has a kind of trust.

—John Holt

Children learn best when they like their teacher and they think their teacher likes them.

—Gordon Neufeld

Stability was overrated. Crises and adventures, on the other hand, could actually teach you something.

—Sarah Addison Allen

Mostly it is loss which teaches us about the worth of things.

—Arthur Schopenhauer

The big mistake in schools is trying to teach children anything, and by using fear as the basic motivation. Fear of getting failing grades, fear of not staying with your class, etc. Interest can produce learning on a scale compared to fear as a nuclear explosion to a firecracker.

—Stanley Kubrick

I guess you could call it a failure, but I prefer the term learning experience.

—Andy Weir

No one learns as much about a subject as one who is forced to teach it.

—Peter F. Drucker

If you read, you can learn to think for yourself.

—Doris Lessing

If you want to teach people a new way of thinking, don't bother trying to teach them. Instead, give them a tool, the use of which will lead to new ways of thinking.

—Richard Buckminster
Fuller

Anything that you learn becomes your wealth, a wealth that cannot be taken away from you; whether you learn it in a building called school or in the school of life. To learn something new is a timeless pleasure and a valuable treasure. And not all things that you learn are taught to you, but many things that you learn you realize you have taught yourself.

—C. JoyBell C.

The only way to learn is to live.

—Matt Haig

Making mistakes is part of learning to choose well. No way around it. Choices are thrust upon us, and we don't always get things right. Even postponing or avoiding a decision can become a choice that carries heavy consequences. Mistakes can be painful-sometimes they cause irrevocable harm-but welcome to Earth. Poor choices are part of growing up, and part of life. You will make bad choices, and you will be affected by the poor choices of others. We must rise above such things.

—Brandon Mul

Outside his office my father had a framed copy of a letter written by Abraham Lincoln to his son's teacher, translated into Pashto. It is a very beautiful letter, full of good advice. 'Teach him, if you can, the wonder of books...But also give him quiet time to ponder the eternal mystery of birds in the sky, bees in the sun, and the flowers on a green hillside,' it says. 'Teach him it is far more honorable to fail than to cheat.'

—Malala Yousafzai

A boy who leaves school knowing much, but hating his lessons, will soon have forgotten almost all he ever learned; while another who had acquired a thirst for knowledge, even if he had learned little, would soon teach himself more than the first ever knew.

—John Lubbock

You learn best by reading a lot and writing a lot, and the most valuable lessons of all are the ones you teach yourself.

—Stephen King

The best way to learn is to do; the worst way to teach is to talk.

—Paul Halmos

By instructing students how to learn, unlearn and relearn, a powerful new dimension can be added to education. Psychologist Herbert Gerjuoy of the Human Resources Research Organization phrases it simply: 'The new education must teach the individual how to classify and reclassify information, how to evaluate its veracity, how to change categories when necessary, how to move from the concrete to the abstract and back, how to look at problems from a new direction—how to teach himself. Tomorrow's illiterate will not be the man who can't read; he will be the man who has not learned how to learn.'

— Alvin Toffler

The fundamental purpose of school is learning, not teaching.

—Richard DuFour

Next to mastery of subject matter, the teacher's own attitude toward students is the most important factor in his success. If he likes them, is consistently firm and patient in applying pressure toward achieving high standards and can wait patiently for favorable results, his teaching will be successful.

—Dana L. Farnsworth

The long-term effects of racism on the achievement gap should not be underestimated. Schooling for whites in this country extends back for several centuries. Though not equally distributed even among whites, free public education has nonetheless an expectation that education leads to success—at least for those in the majority. For people of color no such centuries-long positive history exists. From the slave codes that forbade educating those who were enslaved, to the Jim Crow laws that followed, to the institutional racism that has only been weakened, not eliminated, all have had a devastatingly negative impact on the education of children of color, an impact that continues to this day.

—David Gardner

FACILITATING LEARNING

1. Human beings have a natural potentiality for learning.
2. Significant learning takes place when the subject matter is perceived by the student as having relevance for his own purposes.
3. Learning which involves change in self organization—in the perception of oneself—is threatening and tends to be resisted.
4. Those learnings which are threatening to the self are more easily perceived and assimilated when external threats are at a minimum.
5. When threat to the self is low, experience can be perceived in differentiated fashion and learning can proceed.
6. Much significant learning is acquired through doing.
7. Learning is facilitated when the student participates responsibly in the learning process.
8. Self-initiated learning which involves the whole person of the learner—feelings as well as intellect—is the most lasting and pervasive.
9. Independence, creativity, and self-reliance are all facilitated when self-criticism and self-evaluation are basic and evaluation by others is of secondary importance.
10. The most socially useful learning in the modern world is the learning of the process of learning, a continuing openness to experience and incorporation into oneself of the process of change.

—Carl R. Rogers from
Freedom to Learn

Schools that are closing the...Gap share these characteristics:

- ❑ They have an unwavering commitment to prepare all students for college or other postsecondary education.
- ❑ The instructional program acknowledges this commitment by focusing on students' intellectual development through inquiry, higher-order thinking skills, and authentic learning.
- ❑ The schools are caring, personalized communities where faculty members assume the role of adviser to a small group of students over several years.
- ❑ The teachers are supported through regular professional development, cross-curricula collaboration, and coaching.
- ❑ Extended-day and extended-year learning opportunities give students the time, attention, and other supports necessary for success with the challenging curriculum.
- ❑ The schools communicate regularly with parents and guardians about their children's progress and engage parents in the life of the school.
- ❑ The schools use many forms of data to continuously assess student progress and effective instruction.

—N. Gerry House

[Thomas] Edison had very little formal education as a child, attending school only for a few months. He was taught reading, writing, and arithmetic by his mother, but was always a very curious child and taught himself much by reading on his own. This belief in self-improvement remained throughout his life.

—*National Park Service*

To keep your better students highly motivated, don't be afraid to seek their input and let them decide where some of their time and effort should be spent. Give these students occasional freedom to work on a favorite project or explore some of their own ideas. Even if they stumble, you may benefit from such action because the next time you have to deny a request, these students are more apt to accept your explanation. One thing is certain: When good students get bored, they can be the hardest to motivate.

—Robert L. DeBruyn

A different way to learn is what the kids are calling for....All of them are talking about how our one-size-fits-all delivery system—which mandates that everyone learn the same thing at the same time, no matter what their individual needs—has failed them.

—Seymour Sarason

A joyful classroom atmosphere makes students more apt to learn how to successfully solve problems in potentially stressful situations.

—Robert Sylwester

Emotionally stressful school environments are counterproductive because they can reduce students' ability to learn. Self-esteem and a sense of control over one's environment are important in managing stress. Highly evaluative and authoritarian schools may promote institutional economy, efficiency, and accountability, but also heighten nonproductive stress in students and staff.

—Robert Sylwester

THE FOUR [EDUCATION] MYTHS:

- Learning is essentially a function of effort.
- There is a recipe for good schools, as there is for apple pie and shrimp scampi, and the master chefs hang out in state legislatures and governor's mansions.
- Teaching is simple, and the evidence of good—and bad—teaching is clearly visible.
- There truly was a golden age in American education, and it can be recaptured.

The mythology has its roots in a total lack of concern for the unsuccessful learner. Belief in this...mythology increases the likelihood that educators will embrace values and engage in practices which, in turn, will increase the likelihood that unsuccessful learners will continue to be pushed out of our public schools in increasing numbers.

—James Albrecht

The obligation of the American common public school is to educate all the children of all the people and that failure to honor that obligation will eventually endanger the very fabric of American society. The secret is for principals to take seriously and thoughtfully their roles as educational leaders, to resist the popular easy answers... and instead to search for ways to cast all students in active learner roles in programs which increasingly emphasize higher cognitive processes.

—James Albrecht

Research supports that the classroom teacher is the single most important factor in student learning. It isn't books, class size, technology, equipment, or anything else. Far and away, with no close second, it is...the teacher that makes the biggest difference in students getting a quality education.

—Robert L. DeBruyn

LEARNING STYLE TENDENCIES:

- ‘Manipulative’ learners. These students need to get more physically involved in their lessons to remember them. Hands-on projects, such as model building or play-acting, are useful learning tools.
- ‘Visual’ learners. They retain information best by seeing it. Films, educational TV and museum exhibits help them learn.
- ‘Informal’ learners. These pupils thrive in less structured study arrangements. Beanbag chairs may make a better workplace, for example, than a desk and straight-backed chair.
- ‘[Playlist]’ learners. They use background noise as a screen for better concentration. Some rock music on the radio may help these students to study, rather than hinder them.
- ‘Dyadic’ learners. They work best with a partner, rather than alone or in a group— small or large. Parents should consider allowing such kids to do homework with a sibling or friend.
- ‘Mobile’ learners. These students need to move about and take breaks while studying. Short interruptions to get a drink or look out the window may focus, rather than distract attention.

—Lucia Solórzano

Establish a safe emotional climate where risk-taking is the norm, and where students feel that wrong answers are as much a part of learning as right answers.

—Robin Fogarty

Ages 5 through 8 are the wonder years. That’s when children begin learning to study, to reason, to cooperate. We can put them in desks and drill them all day. Or we can keep them moving, touching, exploring. The experts favor a hands-on approach, but changing the way schools teach isn’t easy. The stakes are high and parents can help.

—Barbara Kantrowitz
and Pat Wingert

Unnecessary piecemealization...occurs when ‘English’ or ‘language arts’ courses are divided into separately taught subjects. Teaching reading, literature, grammar, writing, punctuation, and spelling as separate disciplines detracts from the real point—learning how to get good stuff out of books and thinking, talking, and writing about what is read.

—Eric W. Johnson

The following characteristics of achievers describe traits that teachers can help students develop:

- Achievers are self-reliant and feel responsible for their actions....
- Achievers want to do a good job. They usually don't compete against others; they compete with their own past performance....
- Achievers set 'medium-risk' goals. They don't enjoy achieving very easy goals, nor do they take on wildly difficult tasks....
- Achievers plan carefully....
- Achievers take obstacles into account—person obstacles (like fears, negative attitudes, lack of skills) and world obstacles (lack of materials, opposition from others, rules).
- Achievers find and use help....
- Achievers know how to keep working at the job....
- Achievers check their progress realistically. They seek and are stimulated by realistic feedback from facts, parents, teachers, and friends....
- Achievers enjoy achieving their goals....

—Eric W. Johnson

'I taught a good lesson...' probably suggests the learning is viewed as a process of absorbing information, which in turn means that teaching consists of delivering that information. (Many years ago, the writer George Leonard described lecturing as the 'best way to get information from teacher's notebook to student's notebook without touching the student's mind.') This approach is particularly common among high school and college teachers, who have been encouraged to think of themselves as experts in their content areas (literature, science history) rather than in pedagogy. The *reductio ad absurdum* would be those who 'took their content so very seriously that they forgot their students,' as Linda McNeil put it in her devastating portrait of high school, *Contradictions of Control: School Structure and School Knowledge*.

—Alfie Kohn

The fact is that real learning often can't be quantified, and a corporate-style preoccupation with 'data' turns schooling into something shallow and lifeless. Ideally, attention to learning signifies an effort to capture how each student makes sense of the world, so we can meet them where they are. 'Teaching,' as Deborah Meier has reminded us, 'is mostly listening.' (It's the learners, she adds, who should be doing most of the 'telling,' based on how they grapple with an engaging curriculum.) Imagine how American classrooms would be turned inside out if we ever really put that wisdom into action.

—Alfie Kohn

Although school climate is hard to define or describe, there can be no doubt it is a real factor in motivating teachers and students to hold expectations for themselves and perform at their best academically. Most principals believe that the school's climate highly influences students' achievements and self-concepts. Climate is sometimes referred to as school environment, learning climate, social climate, or organizational climate. In fact, there seem to be many sources of climate in a school: school discipline procedures, physical layout of the school building, noise levels, presence or (or absence) of enthusiasm, amount of litter or vandalism, and so forth....It is possible to single out one aspect of school climate—school learning climate—that affects achievement levels. Luckily, the factors that appear to most significantly affect students' learning are limited in number. Perhaps the most important factor is the set of beliefs, values, and attitudes teachers and students hold about learning. Lawrence Lezotte and his colleagues define learning climate as 'the norms, beliefs, and attitudes reflected in institutional patterns and behavior practices that enhance or impede student learning.'

—James Weber

Teacher expectations...have been linked to student achievement in two ways. Directly, teacher expectations affect the amount of time devoted to instruction, the time spent interacting with students, and the quality of materials and activities used. High expectations of students motivate teachers to better quality instruction. Indirectly, teacher expectations are transmitted to students and form the students' expectations and sense of the worth of academic work.

—James Weber

[The] surprising effect of rewards—that they can undermine children's intrinsic motivation, that is, the child's innate enjoyment of and interest in the activity being rewarded—has been documented and reproduced in dozens of controlled studies since the early 1970s. The research shows that rewards affect young children, adolescents, and adults in much the same way: the greater the incentive, the larger the negative effect on intrinsic motivation.

—Edward Miller

We should not reward children for doing things we want them to enjoy doing for their own sake. I'm not that concerned about using positive reinforcement for potty-training a toddler because we are not trying to instill a lifelong love of defecation. But the use of rewards for reading, writing, drawing, or acting responsibly and generously is cause for concern, because these things could be intrinsically motivating. Extrinsic motivators are most dangerous when offered for something we want children to want to do.

—Alfie Kohn

We have always known that human development is inextricably linked with academic development, but in a time in history where we are putting so much emphasis on testing and academic achievement, we risk losing sight of something that is very obvious: Achievement is as much about student development as it is about rigor and curriculum.

—Peter Benson

He who stops being better stops being good.

--Oliver Cromwell

There is evidence...that ability groupings quickly become levels of expectations. When students are placed in lower strata, teachers often rationalize an overdose of practice and much slower pace than is actually required. The result is bored, discouraged students in the lower groups, reinforcing initial assumptions about those students' abilities.

—Joan Hyman and
Alan S. Cohen

Life is a succession of lessons which must be lived to be understood.

—Ralph Waldo Emerson

It's so hard to get people to spend time studying the work of the students who don't do very well. Because if our main concern is material on which students don't do well, then why don't we look at where the breakdown is and work on that? Just take the assignments of the students who have done poorly, sit down together, and figure out what it is that they didn't know; why we think they didn't know it, and talk about how to alter instructional approaches to help them....At least half the time the problem is with the way the assignment was written: The assignment wasn't really testing what the teacher was trying to test; or there was a vocabulary word that had two meanings; or the context for the problem was a context the students weren't familiar with and so the student couldn't solve the problem. If the achievement gap is based on the nature of the experiences that students have, and if schools don't scaffold appropriately on the understandings that kids bring from their different experiences, then kids can't construct the new understandings.

—Ronald Ferguson

Some of the peer dynamics around achievement, such as teasing each other for making mistakes, may not be visible to teachers, but they are problems as early as first grade....Kids who worry that other classmates tease kids for making mistakes report that they worry more that they may not measure up to their classmates. Worry is anxiety, and anxiety interferes with concentration.

—Ronald Ferguson

If kids don't think the teacher both loves to help them and holds them to a high standard—what I call a 'high help/high perfectionism' classroom—their behavior can deteriorate and their engagement can deteriorate, and the teachers are more likely to think that the kids just don't want to learn. If...students rate the teacher as offering both low help and low perfectionism, kids can treat each other pretty poorly. All you need is about a quarter of the kids in the class who don't think their questions are welcome to get a pretty uncollegial classroom environment. The challenge to the teacher is being able to signal, 'I love to help you' and 'We're never fully satisfied until we can do it correctly.'

—Ronald Ferguson

Students who work cooperatively in the classroom tend to be less worried about how smart they are relative to others and to focus on learning for its own sake. In cooperatively based classrooms, children are more likely to focus on how they can accomplish a task. They tend to view mistakes as necessary components of learning, and learning as a process that involves sustained effort. Under these circumstances, many children come to see mistakes and failure as opportunities to learn, no matter what they believe about their own abilities. Depending on the type of classroom structure teachers choose, they are communicating a view of success and failure to their students that can have a critical impact on children's beliefs.

—Janine Bempechat

All lower achievers, regardless of ethnicity, are at risk for believing that their poor performance results from lack of ability. This belief is potentially very debilitating, for if students do not think they have at least some ability it makes little sense to them to invest effort in their learning. The challenge for teachers is to help their students maintain a healthy balance between believing that they have the ability necessary to learn, and knowing that effort will help them maximize their ability.

—Janine Bempechat

[A] study of lower-income schools found that the strongest elements in high-performing schools are linking lessons closely to state academic standards, ensuring there are enough textbooks and other teaching materials, carefully and regularly analyzing student performance and putting a high priority on student achievement. The study's authors say that these criteria show that poverty and other challenges need not keep students from doing well.

—Jean Merl

School is a place of learning. It is not a place of entertainment or relaxation, like a theater or like the beach. That means that school is essentially a workplace and that the pleasure to be derived from school is integrally related to the satisfaction derived from accomplishing a hard job.

—*National Education Association*

Learning is hard work. And the future of all of us—students, parents, teachers, the community at large—depends on it.

—*National Education Association*

Expectations regarding student achievement do affect teacher behavior and teacher behavior then affects student achievement. It's a vicious cycle that you get into....Become aware of the fact that expectations about students do affect behavior. Then, go a step further and try to identify which students you have low expectations for and which students you have high expectations for. But don't stop there. Identify the differential treatment of the two categories of students. And all this becomes actionable once you realize that you tend to ask certain students more questions, that you tend to ask certain students harder questions, and that you tend to stay with certain students longer when they don't answer correctly. All of a sudden, you have strategies to use with the low-expectation students.

—Robert Marzano

By the time they reach school age, 12% of children...will suffer sufficient mental or physical impairment to put them at risk for learning problems....Learning problems have been linked to low birthweight, lead poisoning, child abuse and neglect, malnutrition, and prenatal exposure to drugs, alcohol and cigarette smoke.

—Lucile Newman and
Stephen Buka

Researchers dispel the myth that, for most of the children in poverty, academically challenging work in mathematics and literacy should be postponed until they are 'ready'—that is, until they have acquired full mastery of basic skills. Although such students are often lacking in certain basic skills, they can acquire these skills at the same time that they gain advanced skills (which provide a broader, more meaningful context for learning 'the basics').

—Michael S. Knapp,
Patricia M. Shields
and Brenda J.
Turnbull

Many studies have found that the degree to which students are actively engaged in learning has a strong impact on the levels of student achievement.

—Martin Haberman

Hands-on, secondhand, and symbolic input can be powerless forms of input for most students who lack prior, real-world experience with the topic under study, unless they are combined with being-there experiences. Thus, field trips should occur at the beginning of study, rather than as a wrap-up, and should be revisited throughout study of the topic.

—Susan Kovalik and
Karen D. Olsen

Teacher quality is of paramount importance. Multiple studies using value-added data indicate that teacher quality is the most powerful predictor of student success, outweighing factors such as socioeconomic status, race, class size and homogeneity, or family educational background. Effects of teacher quality persist. One early study found that, all else being equal, children who had a particularly good teacher in second grade continued to outperform their peers in third, fourth, and fifth grade.

—Elizabeth Barrett
Kidder

45% of students never used things when they were outside of school that they and learned in school, never read during leisure about school subjects, and never talked with friends outside of school about school subjects.

—Gerald W. Bracey

The quality of teaching and learning in the elementary school is the key to achievement in middle and secondary schools. If student learning proceeds well in the first six grades, it is likely to continue in the remaining school years and the students will develop a very positive view of their learning ability as well as an increased commitment to further learning. If the students learn very poorly in these first six grades, their view of themselves as learners will deteriorate and they must seek some means of escape from the schools at the earliest opportunity.

—Benjamin S. Bloom

Concert pianists studied and practiced an average of 17 years before they reached recognition as virtuosos, while the Olympic swimmer needs an average of ten years of instruction and competition to reach world-class status. In the very early years, most of these talented individuals spent about an hour a day on their talent field. By adolescence it was about 25 hours a week, and thereafter it was 30 to 40 hours a week.

—Benjamin S. Bloom

Students tend to be more involved in learning and spend more of their time on-task when:

- The assigned tasks are of appropriate difficulty
- The assigned tasks are interesting or enjoyable
- Performance on the assigned tasks is frequently monitored and assessed
- The mechanical details of classroom behavior are reduced to a minimum
- The physical conditions under which learning occurs are conducive to learning
- Teachers maintain the flow of activity in the classroom
- Student curiosity is aroused
- Clear expectations are communicated to students
- New learning is related to previous learning
- Attention is focused on the relevant, important aspects of the instructional materials and activities
- Feedback is provided on the adequacy or excellence of student task performance
- Task-oriented behavior is reinforced.

—L. W. Anderson

When teachers treat answers as the primary or even sole evidence of learning, lessons end once students have given these answers. Students become conditioned to guess what the teacher wants, and even when they get an answer right they aren't sure why. On the other hand, student learning is enhanced when deeper learning of concepts is the goal. Students have the opportunity to grapple with what they are studying—together, alone, on email, in the library— and reach a deeper and more connected understanding of new ideas. In the higher performing schools... even the lowest performing students are taught to think and discuss and write about new ideas in ways that clarify their understanding and make them better learners.

—Judith A. Langer

Students are more likely to put forth the required effort when there is:

- Task clarity—when they clearly understand the learning goal and know how teachers will evaluate their learning.
- Relevance—when they think the learning goals and assessments are meaningful and worth learning.
- Potential for success—when they believe they can successfully learn and meet the evaluative expectations.

—Robert Marzano

Any subject can be taught effectively in some intellectually honest form to any child at any stage of development.

—J. S. Brunner

Helping your child become a reader is the single most important thing that you can do to help the child to succeed in school—and in life. The importance of reading simply can't be overstated. Reading helps children in all school subjects. More important, it is the key to lifelong learning.

—*U.S. Department of
Education*

The fact is that given the challenges we face, education doesn't need to be reformed—it needs to be transformed. The key to this transformation is not to standardize education, but to personalize it, to build achievement on discovering the individual talents of each child, to put students in an environment where they want to learn and where they can naturally discover their true passions.

—Ken Robinson

A school is in business to cause and promote learning. It should therefore model for all institutions what it means to be a learning organization. A school is not merely a place that expects students to learn; it must encourage and support everyone's learning.

For a school to be a model learning organization, all faculty members should be professional learners: They should engage in deep, broad study of the learning they are charged to cause. What works? What doesn't? Where is student learning most successful, and why? How can we learn from that success? Where are students struggling to learn, and why? What can we do about it? Effectively tackling these questions is why the 'professional' in 'professional practice' means.

—Grant Wiggins and
Jay McTighe

The most effective effort is put forth by children when they attempt tasks which fall in the 'range of challenge'—not too easy and not too hard—where success seems quite possible but not certain.

—Goodwin Watson

The easiest way for me to grow as a person is to surround myself with people smarter than I am.

—Andy Rooney

Pupils learn much from one another; those who have been together for years learn new material more easily from one of their own group than they do from strangers. Children learn that peer consensus is an important criterion; they are uncomfortable when they disagree with their peers, and especially when they find themselves in a minority of one against all the others.

—Goodwin Watson

In order to enrich the ‘curriculum of the home,’ some parents:

- provide books, supplies, and a special place for studying,
- observe routine for meals, bedtimes and homework, and
- monitor the amount of time spent watching TV and doing after-school jobs.

Parents stay aware of their children’s lives at school when they:

- discuss school events,
- help children meet deadlines, and
- talk with their children about school problems and successes.

Research on both gifted and disadvantaged children shows that home efforts can greatly improve student achievement. For example, when parents of disadvantaged children take the steps listed above, their children can do as well at school as the children of more affluent families.

U.S. Department of
Education—*What
Works*

FOUR TYPES OF UNDERACHIEVERS

Trust Seekers: Early in their lives the relationship with their parents was disrupted by divorce, abuse, or other causes. As a result, these children become loners and daydreamers, often preferring playmates much older or younger than themselves.

Approval Seekers: These are students who crave acceptance but are constantly criticized at home. They don’t study to learn, but to earn the praise of their parents, teachers, and peers. If they are not constantly praised, they stop trying.

Independence Seekers: These kids often do very well in subjects they are interested in, at the expense of all others. Possessed with a strong independent streak, they are willing to accept failure to show that they don’t need or care about their parents.

Dependence Seekers: The hardest type of underachievers to treat, these students feel that the worse they do in school, the more their parents will notice them. Often coddled at home, they become discipline problems who neither respect authority nor fear a future without a high school diploma.

—Linnus S. Pecaut

The underachieving child has ability but is inconsistent. He may get an A in math on Monday, an F on Tuesday, a B on Wednesday, forget an assignment on Thursday, and be unprepared for a test on Friday. His inconsistency has nothing to do with his ability. He can do the work—when he wants to.

An underachiever is essentially a bright child who lacks three basic virtues: *Persistence*. He quits whenever he feels like it, rather than when the task is completed.

Obedience to limits. He fails to complete tasks in the allotted time.

Functional independence. He may do excellent work when ‘sat on,’ but his performance deteriorates when tight supervision is removed.

To understand his problem, you must be aware that underachievement is a reaction to a child’s fear of the future. By underachieving, he invites teachers, counselors, and parents to tighten their monitoring efforts and to make decisions that limit his freedom. Ironically, underachievers usually perform better when tightly monitored—even though they may complain about such restrictions—because others are making choices for them that reduce their anxiety about the future. But their performance deteriorates once the restrictions are removed.

Strategies that do not work with underachievers are logic and reasoning, punishment, tutoring, bribing, changing schools, and letting them sink or swim.

The most effective treatment for underachievers is counseling designed to remove specific obstacles that prevent them from putting forth consistent effort. Failure to treat the causes of underachievement will lead only to temporary performance gains.

—Linnus S. Pecaut

Auditory learners, who usually are our best students, listen and understand at a rate of 100 to 200 words per minute, and not more than 200 words per minute—which, paradoxically, is a little faster than we can lecture. However, the right-brain, visual, and kinesthetic learners can listen and understand at rates of up to 1,500 words per minute. They need material presented at a much faster rate than other students. In fact, if material is presented slowly, their brain races ahead to other subjects or shuts off. Indeed, their mind wanders and they become bored at slow rates used in lecture-type instruction.

—Robert L. DeBruyn

When an assertive student is paired with a less assertive student, the highly assertive one takes over; the other student becomes passive and learns less. But... pairing friends facilitates learning in a cooperative setting. Friends know each other’s similarities and differences better, friends have a strong commitment to reciprocity

in relations with one another, friends are able to manage conflicts more effectively, and friends are more active in exploring novel situations together. Friends also perform better together than non-friends on difficult tasks.

—Robert Zazac and
Willard Harlup

Numerous studies of mathematics achievement at different grade and ability levels show that children benefit when real objects are used as aids in learning mathematics. Teachers call these objects ‘manipulatives.’

Objects that students can look at and hold are particularly important in the early stages of learning a math concept because they help the student understand by visualizing. Students can tie later work to these concrete activities.

The type or design of the objects used is not particularly important; they can be blocks, marbles, poker chips, cardboard cutouts—almost anything. Students do as well with inexpensive or homemade materials as with costly, commercial versions. The cognitive development of children and their ability to understand ordinarily move from the concrete to the abstract. Learning from real objects takes advantage of this fact and provides a fit foundation for the later development of skills and concepts.

—U.S. Department of
Education—*What
Works*

Effective time managers in the classroom do not waste valuable minutes on unimportant activities; they keep their students continuously and actively engaged. Good managers perform the following time-conserving functions:

- **Planning Class Work:** choosing the content to be studied, scheduling time for presentation and study, and choosing those instructional activities (such as grouping, seatwork, or recitation) best suited to learning the material at hand;
- **Communicating Goals:** setting and conveying expectations so students know what they are to do, what it will take to get a passing grade, and what the consequences of failure will be;
- **Regulating Learning Activities:** sequencing course content so knowledge builds on itself, pacing instruction so students are preprepared for the next step, monitoring success rates so all students stay productively engaged regardless of how quickly they learn, and running an orderly, academically focused classroom that keeps wasted time and misbehavior to a minimum.

When teachers carry out these functions successfully and supplement them with a well-designed and well-managed program of homework, they can achieve three important goals:

- They capture students' attention.
- They make the best use of available learning time.
- They encourage academic achievement.

—U.S. Department of
Education—*What
Works*

Tutoring programs consistently raise the achievement of both the students receiving instruction and those providing it. Peer tutoring, when used as a supplement to regular classroom teaching, helps slow and underachieving students master their lessons and succeed in school. Preparing and giving the lessons also benefits the tutors themselves because they learn more about the material they are teaching. Of the tutoring programs that have been studied, the most effective include the following elements:

- highly structured and well-planned curricula and instruction methods,
- instruction in basic content and skills (grades 1-3), especially in arithmetic, and
- a relatively short duration of instruction (a few weeks or months).

When these features were combined in the same program, the students being tutored not only learned more than they did without tutoring, they also developed a more positive attitude about what they were studying. Their tutors also learned more than students who did not tutor.

—U. S Department of
Education—*What
Works*

The difference between factual and thought-provoking questions is the difference between asking: 'When did Lincoln deliver the Gettysburg Address?' And asking: 'Why was Lincoln's Gettysburg Address an important speech?' Each kind of question has its place, but the second one intends that the student analyze the speech in terms of the issues of the Civil War.

Although both kinds of questions are important, students achieve more when teacher ask thought-provoking questions and insist on thoughtful answers. Students' answers may also improve if teachers wait longer for a response, giving students more time to think.

Assignments that require students to think, and are therefore more interesting, foster their desire to learn both in and out of school. Such activities include explaining

what is seen or read in class; comparing, relating, and experimenting with ideas; and analyzing principles.

—U. S Department of
Education—*What
Works*

EXAMPLES OF SOUND STUDY PRACTICES:

- Good students adjust the way they study according to several factors:
 - the demand of the material,
 - the time available for studying,
 - what they already know about the topic,
 - the purpose and importance of the assignment, and
 - the standards they must meet.
- Good students space learning sessions on a topic over time and do not cram or study the same topic continuously.
- Good students identify the main idea in new information, connect new material to what they already know, and draw inferences about its significance.
- Good students make sure their study methods are working properly by frequently appraising their own progress.

When low-ability and inexperienced students use these skills, they can learn more information and study more efficiently.

—U.S. Department of
Education—*What
Works*

Good instruction flourishes when teachers collaborate in developing goals that emphasize student achievement. Effective schools have a climate of staff collegiality and use mutual support as a means of improving pupil achievement. School leaders in such schools set aside time for faculty interaction and provide specific opportunities for teachers and administrators to work together on such tasks as setting school policies, improving instructional practice, selecting textbooks, and strengthening discipline.

—U.S. Department of
Education—*What
Works*

A learning experience is one of those things that says, ‘You know that thing you just did? Don’t do that.’

—Douglas Adams

LEARNING STYLES:

- *Imaginative learners* integrate experience with the self, seeking personal involvement, commitment, insight. They are interested in people and culture, approach problems reflectively, look for meaning. Because they see all sides, they sometimes have trouble making decisions.
- *Analytic learners* perceive information abstractly, developing theories from integrating their observations with what is known. They want continuity, need to know what the experts think, value sequential thinking and details. They are thorough and appreciate traditional classrooms. They are engrossed in ideas and uncomfortable with subjective judgments.
- *Commons sense learners* integrate theory and practice. They are pragmatic, believing if something works, use it. They do not tolerate fuzzy ideas or stand on ceremony. Get to the point, is their motto. They like to tinker and experiment with things.
- *Dynamic learners* learn by trial and error, integrating experience and application. They like change, flexibility, risk taking. They get enthusiastic about new things. They can arrive at accurate conclusions in the absence of logic. They may seem pushy, but they are at ease with people.

—David Kolb

Human beings are capable of developing at least seven different ways of knowing the world:

- *Linguistic*—sensitivity to language, meanings and the relations among words; commonly found in the novelist, poet, copywriter, scriptwriter, editor, magazine writer, reporter, public relations director, speechwriter;
- *Logical*—mathematical intelligence constitutes abstract thought, precision, counting, organization, logical structure; found in the mathematician, scientist, engineer, animal tracker, police investigator, lawyer, and accountant;
- *Musical*—the sensitivity to pitch, rhythm, timbre, the emotional power and complex organization of music; this is found in the performer, composer, conductor, musical audience, recording engineer, maker of music instruments;
- *Spatial*—keen observation, visual thinking, mental images, metaphor, a sense of the whole gestalt; found in architects, painters, sculptors, navigators, chess players, naturalists, theoretical physicists, battlefield strategists;
- *Bodily/kinesthetic*—control of one's body and of objects, timing, trained responses that function like reflexes; found in dancers, athletes, actors, inventors, mimists, surgeons, karate teachers and the mechanically gifted;
- *Interpersonal*—sensitivity to others, ability to read the intentions and desires of others and potentially to influence them; includes consideration of others;

found in politician, teacher, religious leader, counselor, shaman, salesman, manager and ‘people people;’ and

- *Intrapersonal*—self-knowledge, sensitivity to one’s own values, purpose feelings, a developed sense of self; identified with the novelist, counselor, wise elder, philosopher, guru, person with deep sense of self.

—Howard Gardner

Only 30 percent of our students remember approximately 75% of what they hear during a normal class period; those are called auditory learners. Forty percent retain three quarters of what they read or see; their strengths are visual. Fifteen percent learn best when tactually involved; such youngsters need to handle materials, write, draw, and be involved in hand-on, concrete experiences. Many youngsters are kinesthetic; they internalize by doing and being involved in real experiences that have direct application to their lives. Some youngsters learn easily through any/all modalities; they tend to be our gifted. Others learn best through only one or two modalities, and some have no strengths. However, regardless of students’ modality strengths, most can achieve on grade level in the same amount of time when they are introduced to new and difficult material through their strongest modality and then reinforced through their secondary and then tertiary modalities.

—Marie Carbo

Thinking styles have been developed through research and...they help teachers decide which students are ‘smart.’ Unless teachers take student’s favored styles into account, they will confuse styles with quality of mind and unfairly label students’ abilities. There are three major ways of being smart—analytic, synthetic, and practical—but only the first is typically recognized in schools. Those who are analytic often are test-smart. They are rewarded by the current mode of schooling, but they are not good at coming up with their own ideas. The result is that our schools essentially mislead students. They develop and reward them for skills that later on will be important, but much less important than they are in school. The IQ-smart children often simply disappear into the woodwork. If we look at the people who make the greatest difference to our society, they are often not the people with the highest IQs.

—Robert Sternberg

Learning styles are characteristic cognitive, affective, and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with and respond to the learning environment.

—James W. Keefe

To learn something, to master something, anything, is as sweet as first love.

—Geoffrey Wolff

The love of learning, the sequestered nooks,
And all the sweet serenity of books.

—Henry Wadsworth
Longfellow

Do not train a child to learn by force or harshness; but direct them to it by what amuses their minds, so that you may be better able to discover with accuracy the peculiar bent of the genius of each.

—Plato

Study hard what interests you the most in the most undisciplined, irreverent and original manner possible.

—Richard P. Feynman

No one is born hating another person because of the color of his skin, or his background, or his religion. People must learn to hate, and if they can learn to hate, they can be taught to love, for love comes more naturally to the human heart than its opposite.

—Nelson Mandela

Self-education is, I firmly believe, the only kind of education there is.

--Isaac Asimov

The most important thing we learn at school is the fact that the most important things can't be learned at school.

—Haruki Murakami

I want to taste and glory in each day, and never be afraid to experience pain; and never shut myself up in a numb core of nonfeeling, or stop questioning and criticizing life and take the easy way out. To learn and think: to think and live; to live and learn: this always, with new insight, new understanding, and new love.

—Sylvia Plath

Perfectionism is the enemy of happiness. Embrace being perfectly imperfect. Learn from your mistakes and forgive yourself, you'll be happier. We make mistakes because we are imperfect. Learn from your mistakes, forgive yourself, and keep moving forward.

—Roy T. Bennett

You cannot open a book without learning something.

—Confucius

The highest activity a human being can attain is learning for understanding, because to understand is to be free.

—Baruch Spinoza

Some things cannot be taught; they must be experienced. You never learn the most valuable lessons in life until you go through your own journey.

—Roy T. Bennett

Learning does not make one learned: there are those who have knowledge and those who have understanding. The first requires memory and the second philosophy.

—Alexandre Dumas

Failure is a bend in the road, not the end of the road. Learn from failure and keep moving forward.

—Roy T. Bennett

Don't just say you have read books. Show that through them you have learned to think better, to be a more discriminating and reflective person. Books are the training weights of the mind. They are very helpful, but it would be a bad mistake to suppose that one has made progress simply by having internalized their contents.

—Epictetus

Now I understand that one of the important reasons for going to college and getting an education is to learn that the things you've believed in all your life aren't true, and that nothing is what it appears to be.

—Daniel Keyes

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

Every man I meet is my superior in some way, and in that I learn from him.

—Ralph Waldo Emerson

The unending paradox is that we do learn through pain.

—Madeleine L'Engle

If we let ourselves, we shall always be waiting for some distraction or other to end before we can really get down to our work. The only people who achieve much are those who want knowledge so badly that they seek it while the conditions are still unfavorable. Favorable conditions never come.

—C. S. Lewis

There is divine beauty in learning... To learn means to accept the postulate that life did not begin at my birth. Others have been here before me, and I walk in their footsteps. The books I have read were composed by generations of fathers and sons, mothers and daughters, teachers and disciples. I am the sum total of their experiences, their quests. And so are you.

—Elie Wiesel

All I have learned, I learned from books.

—Abraham Lincoln

The books that help you most are those which make you think the most. The hardest way of learning is that of easy reading; but a great book that comes from a great thinker is a ship of thought, deep freighted with truth and beauty.

—Pablo Neruda

Everything I learned I learned from the movies.

—Audrey Hepburn

Wisdom.... comes not from age, but from education and learning.

—Anton Chekhov

Successful people have no fear of failure. But unsuccessful people do. Successful people have the resilience to face up to failure—learn the lessons and adapt from it.

—Roy T. Bennett

As you grow, you learn more. If you stayed as ignorant as you were at twenty-two, you'd always be twenty-two. Aging is not just decay, you know. It's growth. It's more than the negative that you're going to die, it's the positive that you understand you're going to die, and that you live a better life because of it.

—Mitch Albom

There is only one way to learn. It's through action. Everything you need to know you have learned through your journey.

—Paulo Coelho

I believe that we learn by practice. Whether it means to learn to dance by practicing dancing or to learn to live by practicing living, the principles are the same. In each, it is the performance of a dedicated precise set of acts, physical or intellectual, from which comes shape of achievement, a sense of one's being, a satisfaction of spirit.... Practice means to perform, over and over again in the face of all obstacles, some act of vision, of faith, of desire. Practice is a means of inviting the perfection desired.

—Martha Graham

The only real mistake is the one from which we learn nothing.

—Henry Ford

Learning to write may be part of learning to read. For all I know, writing comes out of a superior devotion to reading.

—Eudora Welty

The authority of those who teach is often an obstacle to those who want to learn.

—Marcus Tullius Cicero

You have to study and learn so that you can make up your own mind about history and everything else but you can't make up an empty mind. Stock your mind, stock your mind. You might be poor, your shoes might be broken, but your mind is a palace.

—Frank McCourt

What I love about science is that as you learn, you don't really get answers. You just get better questions.

—John Green

All life lessons are not learned at college....Life teaches them everywhere.

—L. M. Montgomery

Learning does not consist only of knowing what we must or we can do, but also of knowing what we could do and perhaps should not do.

—Umberto Eco

No matter how much experience you have, there's always something new you can learn and room for improvement.

—Roy T. Bennett

Leadership and learning are indispensable to each other.

—John F. Kennedy

Perhaps to be able to learn things quickly isn't everything. To be kind is worth a great deal to other people...Lots of clever people have done harm and have been wicked.

—Frances Hodgson
Burnett

One should learn even from one's enemies.

—Ovid

You can know the name of a bird in all the languages of the world, but when you're finished, you'll know absolutely nothing whatever about the bird... So let's look at the bird and see what it's doing—that's what counts. I learned very early the difference between knowing the name of something and knowing something.

—Richard P. Feynman

Every day is lost in which we do not learn something useful.

—Thomas Jefferson

We do not learn from experience... we learn from reflecting on experience.

—John Dewey

Reading is everything. Reading makes me feel like I've accomplished something, learned something, become a better person. Reading makes me smarter. Reading gives me something to talk about later on. Reading is the unbelievably healthy way my attention deficit disorder medicates itself. Reading is escape, and the opposite of escape; it's a way to make contact with reality after a day of making things up, and it's a way of making contact with someone else's imagination after a day that's all too real. Reading is grist. Reading is bliss.

--Nora Ephron

A man, though wise, should never be ashamed of learning more, and must unbend his mind.

—Sophocles

In the long history of humankind (and animal kind, too) those who learned to collaborate and improvise most effectively have prevailed.

—Charles Darwin

If you're twenty-two, physically fit, hungry to learn and be better, I urge you to travel—as far and as widely as possible. Sleep on floors if you have to. Find out how other people live and eat and cook. Learn from them—wherever you go.

—Anthony Bourdain

We teach best what we most need to learn.

—Richard Bach

When asked 'What do we need to learn this for?' any high-school teacher can confidently answer that, regardless of the subject, the knowledge will come in handy once the student hits middle age and starts working crossword puzzles in order to stave off the terrible loneliness.

—David Sedaris

Knowledge exists potentially in the human soul like the seed in the soil; by learning the potential becomes actual.

—Abu Hamid al-Ghazali

That's what learning is, after all; not whether we lose the game, but how we lose and how we've changed because of it, and what we take away from it that we never had before, to apply to other games. Losing, in a curious way is winning.

—Richard Bach

When one teaches, two learn.

—Robert A. Heinlein

Do you train for passing tests or do you train for creative inquiry?

—Noam Chomsky

To learn is not to know; there are the learners and the learned. Memory makes the one, philosophy the others.

—Alexandre Dumas

Instead of going to Paris to attend lectures, go to the public library, and you won't come out for twenty years, if you really wish to learn.

—Leo Tolstoy

Learning is experience. Everything else is just information.

—Albert Einstein

As long as you live, keep learning how to live.

—Lucius Annaeus Seneca

It is good to be in uncomfortable situations because it is in finding our way out of such difficulties that we learn valuable lessons.

—Idowu Koyenikan

There are few things more pathetic than those who have lost their curiosity and sense of adventure, and who no longer care to learn.

—Gordon B. Hinckley

Read, learn, work it up, go to the literature. Information is control.

—Joan Didion

Teaching should be such that what is offered is perceived as a valuable gift and not as hard duty. Never regard study as duty but as the enviable opportunity to learn to know the liberating influence of beauty in the realm of the spirit for your own personal joy and to the profit of the community to which your later work belongs.

—Albert Einstein

Learning is an ornament in prosperity, a refuge in adversity, and a provision in old age.

—Aristotle

Admitting that you do not know something is the first step to learning.

—Terry Goodkind

Knowledge grows exponentially. The more we know, the greater our ability to learn, and the faster we expand our knowledge base.

—Dan Brown

There is not human being from whom we cannot learn something if we are interested enough to dig deep.

—Eleanor Roosevelt

Watching great people do what you love is a good way to start learning how to do it yourself.

—Amy Poehler

Only in books do we learn what's really going on.

—Kurt Vonnegut Jr.

Practice is the hardest part of learning, and training is the essence of transformation.

—Ann Voskamp

All subjects are the same. I memorize notes for a test, spew it, ace it, then forget it. What makes this scary for the future of our country is that I'm in the tip-top percentile on every standardized test. I'm a model student with a very crappy attitude about learning.

—Megan McCafferty

People learn twenty-five percent from their teacher, twenty-five percent from listening to themselves, twenty-five percent from their friends, and twenty-five percent from time.

—Paulo Coelho

What you learn today, for no reason at all, will help you discover all the wonderful secrets of tomorrow.

—Norton Juster

Now that I'm an adult, I realize that kids know at a very young age when they're being devalued, when adults aren't invested enough to help them learn. Their anger over it can manifest itself as unruliness. It's hardly their fault. They aren't 'bad kids.' They're just trying to survive bad circumstances.

—Michelle Obama

Everyone has learning difficulties, because learning to speak French or understanding relativity is difficult.

—Mark Haddon

It's amazing humans can learn something new everyday. For example, every Tuesday my husband learns our son has soccer practice at 6.

—Internet Meme

A good book can teach you about the world and about yourself. You learn more than how to read better; you also learn more about life. You become wiser. Not just more knowledgeable—books that provide nothing but information can produce that result. But wiser, in the sense that you are more deeply aware of the great and enduring truths of human life.

—Mortimer J. Adler

We learn not in the school, but in life.

—Lucius Annaeus Seneca

Don't let your learning lead to knowledge. Let your learning.

—Jim Rohn

I had discovered that learning something, no matter how complex, wasn't hard when I had a reason to want to know it.

—Homer Hickam

Be curious about the world in which you live. Look things up. Chase down every reference. Go deeper than anybody else—that's how you'll get ahead.

—Austin Kleon

Learning is the only thing the mind never exhausts, never fears, and never regrets.

—Leonardo da Vinci

I read for growth, firmly believing that what you are today and what you will be in five years depends on two things: the people you meet and the books you read.

—Twyla Tharp

There is no shame in not knowing something. The shame is in not being willing to learn.

—Alison Croggon

A person is a person through other persons. None of us comes into the world fully formed. We would not know how to think, or walk, or speak, or behave as human beings unless we learned it from other human beings. We need other human beings in order to be human. I am because other people are. A person is entitled to a stable community life, and the first of these communities is the family.

—Desmond Tutu

Live and learn, or you don't live long.

—Robert A. Heinlein

Cruelty does not only hurt the victim, but the perpetrator also, and maybe more deeply and more permanently. You learn nothing very profound about yourself simply by being bullied; but by bullying someone else you learn something you can never forget.

—Sally Rooney

We don't really learn anything properly until there is a problem, until we are in pain, until something fails to go as we had hoped ... We suffer, therefore we think.

—Alain de Botton

In order for one to learn the important lessons of life, one must first overcome a fear each day.

—Ralph Waldo Emerson

The life so short, the craft so long to learn.

—Hippocrates

Success is no accident. It is hard work, perseverance, learning, studying, sacrifice and most of all, love of what you are doing or learning to do

—Pelé

For a human being, nothing comes naturally. We have to learn everything we do.

—Philip Pullman

The more you learn, the less you fear. Learn not in the sense of academic study, but in the practical understanding of life.

—Julian Barnes

I'm living at a peak of clarity and beauty I never knew existed. Every part of me is attuned to the work. I soak it up into my pores during the day, and at night—in the moments before I pass off into sleep—ideas explode into my head like fireworks. There is no greater joy than the burst of a solution to a problem. Incredible that anything could happen to take away this bubbling energy, the zest that fills everything I do. It's as if all the knowledge I've soaked in during the past months has coalesced and lifted me to a peak of light and understanding. This is beauty, love, and truth all rolled into one. This is joy.

—Daniel Keyes

Imitation is not just the sincerest form of flattery—it's the sincerest form of learning.

—George Bernard Shaw

If you want to change a whole people, then you start with the girls. It stands to reason: they learn faster, and they pass on what they learn to their children.

—Terry Pratchett

Failing isn't bad when you learn what not to do.

—Albert Einstein

You run into something you totally don't get, and it's scary as hell. But once you learn something about it, it gets easier to handle. Knowledge counters fear. It always has.

—Jim Butcher

It's what we think we know that keeps us from learning.

—Claude Bernard

Ah, child and youth, if you knew the bliss which resides in the taste of knowledge, and the evil and ugliness that lies in ignorance, how well you are advised to not complain of the pain and labor of learning.

—Christine de Pizan

I liked learning things. How numbers worked together to explain the stars. How molecules made the world. All the ugly and wonderful things people had done in the last two thousand years.

—Bryn Greenwood

We destroy the love of learning in children, which is so strong when they are small, by encouraging and compelling them to work for petty and contemptible rewards, gold stars, or papers marked 100 and tacked to the wall, or A's on report cards, or honor rolls, or dean's lists, or Phi Beta Kappa keys, in short, for the ignoble satisfaction of feeling that they are better than someone else.

—John C. Holt

The only way to win is to learn faster than anyone else.

—Eric Ries

At one time I thought the most important thing was talent. I think now that—the young man or the young woman must possess or teach himself, train himself, in infinite patience, which is to try and to try and to try until it comes right. He must train himself in ruthless intolerance. That is, to throw away anything that is false no matter how much he might love that page or that paragraph. The most important thing is insight, that is...curiosity to wonder, to mull, and to muse why it is that man does what he does. And if you have that, then I don't think the talent makes much difference, whether you've got that or not.

—William Faulkner

Fools learn from experience. I prefer to learn from the experience of others.
—Otto von Bismarck

Everything you are learning is preparing you for something else.
—Marjorie Pay Hinckley

You must know nothing before you can learn something, and be empty before you can be filled. Is not the emptiness of the bowl what makes it useful?
—Lloyd Alexander

It is in the whole process of meeting and solving problems that life has meaning. Problems are the cutting edge that distinguishes between success and failure. Problems call forth our courage and our wisdom; indeed, they create our courage and our wisdom. It is only because of problems that we grow mentally and spiritually. It is through the pain of confronting and resolving problems that we learn.
—M. Scott Peck

Before going back to college, I knew I didn't want to be an intellectual, spending my life in books and libraries without knowing what the hell is going on in the streets. Theory without practice is just as incomplete as practice without theory. The two have to go together.
—Assata Shakur

No one can become really educated without having pursued some study in which he took no interest—for it is a part of education to learn to interest ourselves in subjects for which we have no aptitude.
—T. S. Eliot

We do learn and develop when we are exposed to those who are greater than we are. Perhaps this is the chief way we mature.
—Madeleine L'Engle

Master those books you have. Read them thoroughly. Bathe in them until they saturate you. Read and reread them...digest them. Let them go into your very self. Peruse a good book several times and make notes and analyses of it. A student will find that his mental constitution is more affected by one book thoroughly mastered than by twenty books he has merely skimmed. Little learning and much pride comes from hasty reading. Some men are disabled from thinking by their putting meditation away for the sake of much reading. In reading let your motto be 'much not many.'

—Charles H. Spurgeon

If you are immune to boredom, there is literally nothing you cannot accomplish.

—David Foster Wallace

Children learn what they live. Put kids in a class and they will live out their lives in an invisible cage, isolated from their chance at community; interrupt kids with bells and horns all the time and they will learn that nothing is important or worth finishing; ridicule them and they will retreat from human association; shame them and they will find a hundred ways to get even. The habits taught in large-scale organizations are deadly.

—John Taylor Gatto

Don't be so damn hard on yourself. Yeah, you screwed up. You're not perfect, fine. Learn from it. But don't punish yourself. Be kind to you, even when you screw up. You'll bounce back eventually. You'll make up for it.

—Stephanie Klein

If you tell people everything you take away their opportunity to learn.

—Michael Scott

Our great mistake in education is, as it seems to me, the worship of book-learning—the confusion of instruction and education. We strain the memory instead of cultivating the mind. The children in our elementary schools are wearied by the mechanical act of writing, and the interminable intricacies of spelling; they are oppressed by columns of dates, by lists of kings and places, which convey no definite idea to their minds, and have no near relation to their daily wants and occupations; while in our public schools the same unfortunate results are produced by the weary monotony of Latin and Greek grammar. We ought to follow exactly the opposite course with children—to give them a wholesome variety of mental food, and endeavor to cultivate their tastes, rather than to fill their minds with dry facts. The important thing is not so much that every child should be taught, as that every child should be given the wish to learn. What does it matter if the pupil know a little more or a little less? A boy who leaves school knowing much, but hating his lessons, will soon have forgotten almost all he ever learned; while another who had acquired a thirst for knowledge, even if he had learned little, would soon teach himself more than the first ever knew.

—John Lubbock

Fear dims when you learn things.

—Lois Lowry

You learn to speak by speaking, to study by studying, to run by running, to work by working; in just the same way, you learn to love by loving.

—St. Francis De Sales

That which causes us trials shall yield us triumph: and that which make our hearts ache shall fill us with gladness. The only true happiness is to learn, to advance, and to improve: which could not happen unless we had commence with error, ignorance, and imperfection. We must pass through the darkness, to reach the light.

—Albert Pike

One often learns more from ten days of agony than from ten years of contentment.

—Merle Shain

To endure is the first thing that a child ought to learn, and that which he will have the most need to know.

—Jean Jacques Rousseau

Take the attitude of a student,
Never be too big to ask questions,
Never know too much to learn something new.

—Og Mandino

Learning is often spoken of as if we are watching the open pages of all the books which we have ever read, and then, when occasion arises, we select the right page to read aloud to the universe.

—Alfred North
Whitehead

But though his thought and talk were all bookish and smelt of the lamp, yet they were as racy with the elements of every-day life as they were flavored with the essence of all good literatures. The truth was, he lived two lives: one alone with his library, the other active in courts; the one led him in silence through the memorable thoughts and splendid epitaphs of the dead; the other in noise and confusion through the jealous hearts and squabbling tongues and tedious narratives of the living. By both he educated himself.

—Edward G. Parker
(1860)

Learning is a treasure that will follow its owner everywhere.

—Chinese Proverb

All the world is a laboratory to the inquiring mind.

—Martin H. Fischer

We could jettison our cultlike devotion to homework, which burdens children across the socioeconomic and learning spectrums by fueling the specious view that ‘learning’ happens under the auspices of an institution, rather than within the unbounded human brain. Some children need to be left alone after a long school day to juice their learning mojo; others may need much more comprehensive support to unleash their potential than is found in a pack of multiplication flash cards.

—Erika Christakis

No matter how one may think himself accomplished, when he sets out to learn a new language, science, or the bicycle, he has entered a new realm as truly as if he were a child newly born into the world.

—Frances Willard

The most useful piece of learning for the uses of life is to unlearn what is untrue.

—Antisthenes

Every act of conscious learning requires the willingness to suffer an injury to one’s self-esteem. That is why young children, before they are aware of their own self-importance, learn so easily.

—Thomas Szasz

I am what the librarians have made me with a little assistance from a professor of Greek and a few poets.

—Bernard Keble
Sandwell

The best of my education has come from the public library... my tuition fee is a bus fare and once in a while, five cents a day for an overdue book. You don’t need to know very much to start with, if you know the way to the public library.

—Lesley Conger

The important thing is not so much that every child should be taught, as that every child should be given the wish to learn.

—John Lubbock

The mind once enlightened cannot again become dark.

—Thomas Paine

Sometimes kids get bad grades in school because the class moves too slow for them. Einstein got D's in school.

—Bill Watterson

I don't want to believe. I want to know.

—Carl Sagan

Most problems of teaching are not problems of growth but helping cultivate growth. As far as I know, and this is only from personal experience in teaching, I think about ninety percent of the problem in teaching, or maybe ninety-eight percent, is just to help the students get interested. Or what it usually amounts to is to not prevent them from being interested. Typically they come in interested, and the process of education is a way of driving that defect out of their minds. But if children[s] ... normal interest is maintained or even aroused, they can do all kinds of things in ways we don't understand.

—Noam Chomsky

What I learned on my own I still remember.

—Nassim Nicholas Taleb

One goes to college to learn, it seems, not to think. When one enters the portals of learning, one leaves the dearest pleasures—solitude, books and imagination—outside with the whispering pines. I suppose I ought to find some comfort in the thought that I am laying up treasures for future enjoyment, but I am improvident enough to prefer present joy to hoarding riches against a rainy day.

—Helen Keller

The home is the first and most effective place to learn the lessons of life: truth, honor, virtue, self control, the value of education, honest work, and the purpose and privilege of life. Nothing can take the place of home in rearing and teaching children, and no other success can compensate for failure in the home.

—David O. McKay

We have to go from what is essentially an industrial model of education, a manufacturing model, which is based on linearity and conformity and batching people. We have to move to a model that is based more on principles of agriculture. We have to recognize that human flourishing is not a mechanical process; it's an organic process. And you cannot predict the outcome of human development. All you can do, like a farmer, is create the conditions under which they will begin to flourish.

—Ken Robinson

Teachers have three loves: love of learning, love of learners, and the love of bringing the first two loves together.

—Scott Hayden

You learn more if you're laughing at the same time.

—Mary Ann Shaffer &
Annie Barrows

Mistakes are a part of being human. Precious life lessons that can only be learned the hard way. Unless it's a fatal mistake, which, at least, others can learn from.

—Al Franken

One learns from books and example only that certain things can be done. Actual learning requires that you do those things.

—Frank Herbert

There is no end to education. It is not that you read a book, pass an examination, and finish with education. The whole of life, from the moment you are born to the moment you die, is a process of learning.

—Jiddu Krishnamurti

I don't feel stupid, just inadequate. After three years of studying the law, I'm very much aware of how little I know.

—John Grisham

We need the courage to learn from our past and not live in it.

—Sharon Salzberg

Too often we give children answers to remember rather than problems to solve.

—Roger Lewin

If parents want to give their children a gift, the best thing they can do is to teach their children to love challenges, be intrigued by mistakes, enjoy effort, and keep on learning. That way, their children don't have to be slaves of praise. They will have a lifelong way to build and repair their own confidence.

—Carol S. Dweck

I want my children to understand the world, but not just because the world is fascinating and the human mind is curious. I want them to understand it so that they will be positioned to make it a better place

—Howard Gardner

Nobody is capable of of free speech unless he knows how to use language, and such knowledge is not a gift: it has to learned and worked at.

—Northrop Frye

When you find a writer who really is saying something to you, read everything that writer has written and you will get more education and depth of understanding out of that than reading a scrap here and a scrap there and elsewhere. Then go to people who influenced that writer, or those who were related to him, and your world builds together in an organic way that is really marvelous.

—Joseph Campbell

This idea that children won't learn without outside rewards and penalties, or in the debased jargon of the behaviorists, positive and negative reinforcements, usually becomes a self-fulfilling prophecy. If we treat children long enough as if that were true, they will come to believe it is true. So many people have said to me, If we didn't make children do things, they wouldn't do anything. Even worse, they say, If I weren't made to do things, I wouldn't do anything. It is the creed of a slave.

—John Holt

Once you've decided that something's absolutely true, you've closed your mind on it, and a closed mind doesn't go anywhere. Question everything. That's what education's all about.

—David Eddings

Try to learn something about everything and everything about something.

—Thomas Henry Huxley

The apparent ease with which children learn is their ruin. You fail to see that this very facility proves that they are not learning. Their shining, polished brain reflects, as in a mirror, the things you show them, but nothing sinks in. The child remembers the words and the ideas are reflected back; his hearers understand them, but to him they are meaningless.

Although memory and reason are wholly different faculties, the one does not really develop apart from the other. Before the age of reason the child receives images, not ideas; and there is this difference between them: images are merely the pictures of external objects, while ideas are notions about those objects determined by their relations.

—Jean-Jacques Rousseau

Sylvie's knowledge, like Izzie's, was random yet far-ranging, The sign that one has acquired one's learning from reading novels rather than an education.

—Kate Atkinson

It is paradoxical that many educators and parents still differentiate between a time for learning and a time for play without seeing the vital connection between them.

—Leo Buscaglia

A fourth-grade reader may be a sixth-grade mathematician. The grade is an administrative device which does violence to the nature of the developmental process.

B. F. Skinner

Homeschooling and public schooling are as opposite as two sides of a coin. In a homeschooling environment, the teacher need not be certified, but the child **MUST** learn. In a public school environment, the teacher **MUST** be certified, but the child need **NOT** learn.

—Gene Royer

Perhaps the most valuable result of all education is the ability to make yourself do the thing you have to do, when it ought to be done, whether you like it or not. It is the first lesson that ought to be learned and however early a man's training begins, it is probably the last lesson that he learns thoroughly.

—Thomas Henry Huxley

Fill your mind before you empty your mouth.

—Habeeb Akande

Read books by people you disagree with. Listen to others who think differently from you. Watch programming you wouldn't normally watch. Expand your mind and views of the world. As right as you think you are about your own beliefs and experiences, others feel the same way about their own. You'll learn more than you ever imagined if you see the world through beliefs rather than right and wrong.

—Emily Maroutian

education is not confined to books, and the finest characters often graduate from no college, but make experience their master, and life their book. [Some care] only for the mental culture, and [are] in danger of over-studying, under the delusion . . . that learning must be had at all costs, forgetting that health and real wisdom are better.

—Louisa May Alcott

Learning is decontextualized. We break ideas down into tiny pieces that bear no relation to the whole. We give students a brick of information, followed by another brick, followed by another brick, until they are graduated, at which point we assume they have a house. What they have is a pile of bricks, and they don't have it for long.

—Alfie Kohn

It's not just learning that's important. It's learning what to do with what you learn and learning why you learn things that matters.

—Norton Juster

Historical novels are, without question, the best way of teaching history, for they offer the human stories behind the events and leave the reader with a desire to know more.

—Louis L'Amour

What is most surprising of all is how much fear there is in school. Why is so little said about it. Perhaps most people do not recognize fear in children when they see it. They can read the grossest signs of fear; they know what the trouble is when a child clings howling to his mother; but the subtler signs of fear escaping them. It is these signs, in children's faces, voices, and gestures, in their movements and ways of working, that tell me plainly that most children in school are scared most of the time, many of them very scared. Like good soldiers, they control their fears, live with them, and adjust themselves to them. But the trouble is, and here is a vital difference between school and war, that the adjustments children make to their fears are almost wholly bad, destructive of their intelligence and capacity. The scared fighter may be the best fighter, but the scared learner is always a poor learner.

—John Holt

Education is mostly about institutions and getting tickets stamped; learning is what we do for ourselves. When we're lucky, they go together. If I had to choose, I'd take learning.

—Thomas C. Foster

By the time a student gets to college, he's spent a decade curating a bewilderingly diverse resume to prepare for a completely unknowable future. Come what may, he's ready—for nothing in particular.

—Peter Thiel

Learning should take place when it is needed, when the learner is interested, not according to some arbitrary, fixed schedule.

—Donald A. Norman

Let the tutor not merely require a verbal account of what the boy has been taught but the meaning and the substance of it: let him judge how the child has profited from it not from the evidence of his memory but from that of his life. Let him take what the boy has just learned and make him show him dozens of different aspects of it and then apply it to just as many different subjects, in order to find out whether he has really grasped it and make it part of himself, judging the boy's progress by what Plato taught about education. Spewing up food exactly as you have swallowed it is evidence of a failure to digest and assimilate it; the stomach has not done its job if, during concoction, it fails to change the substance and the form of what it is given.

—Michel de Montaigne

The ignorant learn from none,
the simple learn from some,
the intelligent learn from many,
but enlightened learn from all.

The arrogant learn from none,
the gracious learn from some,
the patient learn from many,
but the humble learn from all.

The disinterested learn from none,
the curious learn from some,
the keen learn from many,
but the disciplined learn from all.

—Matshona Dhliwayo

The home-schooling movement has quietly grown to a size where one and half million young people are being educated entirely by their own parents; last month the education press reported the amazing news that, in their ability to think, children schooled at home seem to be five or even ten years ahead of their formally trained peers.

—John Taylor Gatto

Educating yourself does not mean that you were stupid in the first place; it means that you are intelligent enough to know that there is plenty left to learn.

—Melanie Joy

What we're learning in our schools is not the wisdom of life. We're learning technologies, we're getting information. There's a curious reluctance on the part of faculties to indicate the life values of their subjects.

—Joseph Campbell

Children are habituated to learning without understanding.

—Jonathan Edwards

Strange as it seems, no amount of learning can cure stupidity, and higher education positively fortifies it.

—Stephen Vizinczey

It's up to you to educate yourself.

It's up to you to learn speaking skills and people skills.

It's up to you to try (and usually fail, but to try again) all sorts of ventures.

The rest is a combination of hard work, being at the right place ...at the right time...with the right thing...oh yes...and more (never ending) hard work.

—Gene Simmons

Keep those faces in mind, the little girls and boys in the early grades, all trusting the adults to show them the way, all eager and excited about life and what will come next, and then just follow those faces over time. Follow the face of a little girl who doesn't read very well and is told to try harder; who tends to daydream and is told she better pay attention; who talks out in class when she sees something fascinating, like a butterfly on the windowpane, and is told to leave the class and report to the principal; who forgets her homework and is told she will just never learn, will she; who writes a story rich in imagination and insight and is told her handwriting and spelling are atrocious; who asks for help and is told she should try harder herself before getting others to do her work for her; who begins to feel unhappy in school and is told that big girls try harder. This is the brutal process of the breaking of the spirit of a child. I can think of no more precious resource than the spirits of our children. Life necessarily breaks us all down somewhat, but to do it unnecessarily to our children in the name of educating them —this is a tragedy. To take the joy of learning—which one can see in any child experimenting with something new—to take that joy and turn it into fear—that is something we should never do.

—Edward M. Hallowell

All abilities are paid for with disabilities....insight into one area involves blind spots in another. i could not have done what i have done as a writer had i been a gifted mathematician or physicist.

—William S. Burroughs

All democracies demand common public education because nothing makes people so much alike as the same education.

—Karl Jaspers

One of the most important things one can do in life is to brutally question every single thing you are taught.

—Bryant McGill

The Old Soul is more inclined to be a lifelong learner, constantly feeding his thirst for insight through his own persistent efforts. His learning has not been forced into him through education or learned out of obligation, but has been absorbed out of curiosity and personal choice.

—Aletheia Luna

Often I hear people say they do not have time to read. That's absolute nonsense. In the one year during which I kept that kind of record, I read twenty-five books while waiting for people. In offices, applying for jobs, waiting to see a dentist, waiting in a restaurant for friends, many such places. I read on buses, trains, and planes. If one really wants to learn, one has to decide what is important. Spending an evening on the town? Attending a ball game? Or learning something that can be with you your life long?

—Louis L'Amour

Schools assume that children are not interested in learning and are not much good at it, that they will not learn unless made to, that they cannot learn unless shown how, and that the way to make them learn is to divide up the prescribed material into a sequence of tiny tasks to be mastered one at a time, each with its appropriate 'morsel' and 'shock.' And when this method doesn't work, the schools assume there is something wrong with the children—something they must try to diagnose and treat.

—John Holt

Grades really cover up failure to teach. A bad instructor can go through an entire quarter leaving absolutely nothing memorable in the minds of his class, curve out the scores on an irrelevant test, and leave the impression that some have learned and some have not. But if the grades are removed, the class is forced to wonder each day what it's really learning. The questions, What's being taught? What's the goal? How do the lectures and assignments accomplish the goal? become ominous. The removal of grades exposes a huge and frightening vacuum.

—Robert M. Pirsig

As a woman, I know you're young but you gotta hear it now, the most valuable part about you is your brain. Get an education, don't let anybody tell you that your body or the size that you wear or any of that bullshit matters because it doesn't. Your brain matters, so be the smart girl in the room because to be funny you have to be smart, because you have to get the joke

—Sophia Bush

A classical work of literature can never be completely understood. But those who are educated and educating themselves must always desire to learn more from it.

—Friedrich Schlegel

[E]ducation is a thing you get past and forget about as quickly as possible. This is particularly true of elementary and secondary education, of course.... I began to remember what it had been like: the tremendous excitement of the first couple of years, when kids imagine that great secrets are going to be unfolding before them, then the disappointment that gradually sets in when you begin to realize the truth: There's plenty of learning to do, but it's not the learning you wanted. It's learning to keep your mouth shut, learning how to avoid attracting the teacher's attention when you don't want it, learning not to ask questions, learning how to pretend to understand, learning how to tell teachers what they want to hear, learning to keep your own ideas and opinions to yourself, learning how to look as if you're paying attention, learning how to endure the endless boredom.

—Daniel Quinn

Only one who has learned much can fully appreciate his ignorance.

—Louis L'Amour

Let children alone... the education of habit is successful in so far as it enables the mother to let her children alone, not teasing them with perpetual commands and directions—a running fire of Do and Don't ; but letting them go their own way and grow, having first secured that they will go the right way and grow to fruitful purpose.

—Charlotte Mason

If you are investing in your education and you are learning, you should do that as early as you possibly can, because then it will have time to compound over the longest period. And that the things you do learn and invest in should be knowledge that is cumulative, so that the knowledge builds on itself. So instead of learning something that might become obsolete tomorrow, like some particular type of software [that no one even uses two years later], choose things that will make you smarter in 10 or 20 years.

—Alice Schroeder

Our schools cannot be improved if we ignore the disadvantages associated with poverty that affect children's ability to learn. Children who have grown up in poverty need extra resources, including preschool and medical care.

—Diane Ravitch

With self-confidence, self-education and self-discipline, you can master the act in any chosen field.

—Lailah Gifty Akita

Life is still better than University. In school, your teacher is the fruit picker and you are the open fruit basket. Then you take those fruits and make cakes and pies. But life is going to give you the chance to go out there and pick those fruits yourself. Then you can eat them, or make them into something else; any which way, your own hands picked them!

—C. JoyBell C.

When someone shows genuine interest in your learning and development, even if only for ten minutes in a busy day, it matters. It matters especially for women, for minorities, for anyone society is quick to overlook.

—Michelle Obama

Fear, boredom, and resistance—they all go to make what we call stupid children.

—John Holt

Evidence suggests that teacher skill has less influence on a student's performance than a completely different set of factors: namely, how much kids have learned from their parents, how hard they work at home, and whether the parents have instilled an appetite for education.

—Steven D. Levitt

The cure to eliminate fake news is that people stop reading 140-character tweets and start reading 600-page books.

—Piero Scaruffi

It is not the teacher's proper task to be constantly testing and checking the understanding of the learner. That's the learner's task, and only the learner can do it. The teacher's job is to answer questions when learners ask them, or to try to help learners understand better when they ask for that help.

—John Holt

Perhaps the greatest of all pedagogical fallacies is the notion that a person learns only what he is studying at the time. Collateral learning in the way of formation of enduring attitudes may be and often is more important than the spelling lesson, or the lesson in geography or history. For these attitudes are fundamentally what count in the future.

—John Dewey

Learning is what you get from school. When it comes to classes like history, geography, and algebra, schools teach you facts and ideas—most of which you’re going to forget. This is LEARNING. But true growth comes from something else. Something much more powerful than learning. It’s called TRANSFORMATION. When you learn a fact you can forget it the next day. But a transformation is when your entire worldview shifts. When a transformation occurs there is an opening for a new way of seeing the world. It’s a complete shift in perspective. A transformation causes an exponential jump in who you are as a person. It may jolt you and rejig some of your long-held beliefs and values.

—Vishen Lakhiani

People will be most creative when they feel motivated primarily by the interest, enjoyment, challenge and satisfaction of the work itself... and not by external pressures or rewards.

— Dr. Teresa Amabile

Studies have shown that games outperform textbooks in helping students learn fact-based subjects such as geography, history, physics, and anatomy, while also improving visual coordination, cognitive speed, and manual dexterity.

—Peter H. Diamandis

At the Lab School children planted gardens and grew crops not to become farmers but to learn about food, chemistry, and geography. These students, who came from fairly affluent families in Hyde Park, acquired considerable knowledge, but they were creatively and actively involved in their education and less dependent on textbooks and traditional instruction. Children could read a textbook to learn how to boil an egg, but experimenting on their own drew upon their interests and strengthened their powers of observation. Efficiency was sacrificed, but active engagement in learning, as in democracy, required time and patience.

—William J. Reese

If you trust in yourself. . .and believe in your dreams. . .and follow your star. . . you’ll still get beaten by people who spent their time working hard and learning things.

—Terry Pratchett

Parents and teachers think that the child should be taught the local geography first. From there they introduce her to ever larger units by graduated steps. The child is not, however, naturally disposed to learn by graduated steps. Her mind tends to leap from one spatial-temporal scale to another, such that, at seven or eight, she may well take a more lively interest in America than in Dane County, Wisconsin, in the dinosaur than in the dairy cow, in the Great Wall of China than in her hometown's water tower. Socially and morally, too, she is more drawn to issues of good and evil, fairness and unfairness, categories that affect her life, than to adult priorities of class, ethnicity, and nationality. Unfortunately, adults have power, which they all too often use to steer the child to their own narrower concerns.

—Wilfred M. McClay

Social control has spawned grouping practices that expose only some students to important content and enlightened instruction. In the early grades, students are divided into three groups—for example, canaries, robins, and sparrows. The canaries get the best curriculum, the sparrows the most mundane. By 12th grade, the groups are still intact. Now, the canaries are doing advanced placement coursework, the sparrows are taking auto mechanics or clerical training, and the robins are getting something in between. Such patterns indicate either that remediation was never the goal of these grouping practices, or that schools do not know how to remediate.

—Walter Parker

Social control promotes teaching practices that sacrifice learning goals to management goals. Consider the principal whose chief concern is a smooth-running building or the teacher who reduces complex ideas to easily distributed lists of facts.

—Walter Parker

More on less. Learning should not be confused with covering material. Covering is a euphemism in social studies for teaching by mentioning; it implies superficial instruction. Covering typically means the teacher tells students a few facts about a person or event and then moves on to telling a few facts about another person or event. This parade-of-facts approach to social studies misrepresents the curriculum plan and undercuts authentic learning. More on less means that students will go into greater depth on a limited number of important topics. When topics are studied in depth, lessons can challenge students to perform near the ceiling of their abilities, going beyond the facts gathered to form durable and flexible understandings.

—Walter Parker

Not having heard of it is not as good as having heard of it. Having heard of it is not as good as having seen it. Having seen it is not as good as knowing it. Knowing it is not as good as putting it into practice.

—Xunzi (Xun Kuang)

As for integrating geography...all subjects can benefit from the use of the geographic perspective—not to push out other subjects—but to enhance them, to improve overall learning. Novels and plays have settings, even paintings and music often have geographic settings. Why not use real-world problems of time and distance, latitude and longitude, to help teach math skills? I would use maps in every history or current events discussion, or lesson about cultures, or languages, or politics.

—Gilbert M. Grosvenor

I just memorized six pages of the dictionary...I learned next to nothing.

—Internet Meme

Any fool can know. The point is to understand.

—Albert Einstein

Great things happen to those who don't stop believing, trying, learning, and being grateful.

—Roy T. Bennett

I am driven by two main philosophies: know more today about the world than I knew yesterday and lessen the suffering of others. You'd be surprised how far that gets you.

—Neil deGrasse Tyson

Several research studies are proving that listening to the right kind of music can put your mind into study mode.

Here are some of the benefits of tuning in to the right tunes:

Relaxes the mind

Increases concentration

Lessens distractions

Improves focus

Improves performance in high-pressure situations, such as mid-terms and finals week.

—Vaughn College,
Student Life

You can listen to silence and learn from it. It has a quality and a dimension all its own.

—Chaim Potok

We all make mistakes...so just put it behind you. We should regret our mistakes and learn from them, but never carry them forward into the future with us.

—L. M. Montgomery

This is an important lesson to remember when you're having a bad day, a bad month, or a shitty year. Things will change: you won't feel this way forever. And anyway, sometimes the hardest lessons to learn are the ones your soul needs most. I believe you can't feel real joy unless you've felt heartache. You can't have a sense of victory unless you know what it means to fail.

—Kelly Cutrone

People never learn anything by being told, they have to find out for themselves.

—Paulo Coelho

These are the things I learned (in Kindergarten):

1. Share everything.
2. Play fair.
3. Don't hit people.
4. Put things back where you found them.
5. CLEAN UP YOUR OWN MESS.
6. Don't take things that aren't yours.
7. Say you're SORRY when you HURT somebody.
8. Wash your hands before you eat.
9. Flush.
10. Warm cookies and cold milk are good for you.
11. Live a balanced life—learn some and drink some and draw some and paint some and sing and dance and play and work everyday some.
12. Take a nap every afternoon.
13. When you go out into the world, watch out for traffic, hold hands, and stick together.
14. Be aware of wonder. Remember the little seed in the Styrofoam cup: The roots go down and the plant goes up and nobody really knows how or why, but we are all like that.
15. Goldfish and hamster and white mice and even the little seed in the Styrofoam cup—they all die. So do we.
16. And then remember the Dick-and-Jane books and the first word you learned—the biggest word of all—LOOK.

—Robert Fulghum

I have always believed, and I still believe, that whatever good or bad fortune may come our way we can always give it meaning and transform it into something of value.

—Hermann Hesse

Experience is a brutal teacher, but you learn fast.

—William Nicholson

Learn to let what is unfair teach you.

—David Foster Wallace

Life, I've learned, is never fair. If they teach anything in schools, that should be it.

—Nicholas Sparks

If you hate your parents, the man or the establishment, don't show them up by getting wasted and wrapping your car around a tree. If you really want to rebel against your parents, out-learn them, outlive them, and know more than they do.

—Henry Rollins

We have lived our lives by the assumption that what was good for us would be good for the world. We have been wrong. We must change our lives so that it will be possible to live by the contrary assumption, that what is good for the world will be good for us. And that requires that we make the effort to know the world and learn what is good for it.

—Wendell Berry

It is better to know how to learn than to know.

—Dr. Seuss

It is impossible for a man to learn what he thinks he already knows.

—Epictetus

Whatever we learn has a purpose and whatever we do affects everything and everyone else, if even in the tiniest way. Why, when a housefly flaps his wings, a breeze goes round the world; when a speck of dust falls to the ground, the entire planet weighs a little more; and when you stamp your foot, the earth moves slightly off its course. Whenever you laugh, gladness spreads like the ripples in the pond; and whenever you're sad, no one anywhere can be really happy. And it's much the same thing with knowledge, for whenever you learn something new, the whole world becomes that much richer.

—Norton Juster

It is, in fact, nothing short of a miracle that the modern methods of instruction have not yet entirely strangled the holy curiosity of inquiry; for this delicate little plant, aside from stimulation, stands mainly in need of freedom. Without this it goes to wrack and ruin without fail.

—Albert Einstein

Your most unhappy customers are your greatest source of learning.

—Bill Gates

I would rather entertain and hope that people learned something than educate people and hope they were entertained.

—Walt Disney

There are two kinds of failure. The first comes from never trying out your ideas because you are afraid, or because you are waiting for the perfect time. This kind of failure you can never learn from, and such timidity will destroy you. The second kind comes from a bold and venturesome spirit. If you fail in this way, the hit that you take to your reputation is greatly outweighed by what you learn. Repeated failure will toughen your spirit and show you with absolute clarity how things must be done.

—Robert Greene

A little learning is a dangerous thing.
Drink deep, or taste not the Pierian Spring;
There shallow draughts intoxicate the brain,
and drinking largely sobers us again.

—Alexander Pope

Perfection isn't what matters. In fact, it's the very thing that can destroy you if you let it.

—Emily Giffin

If you can learn to stop expecting impossible perfection, in yourself and others, you may find the happiness that has always eluded you.

—Lisa Kleypas

When you take the time to actually listen, with humility, to what people have to say, it's amazing what you can learn. Especially if the people who are doing the talking also happen to be children.

—Greg Mortenson

One must learn to love.— This is what happens to us in music: first one has to learn to hear a figure and melody at all, to detect and distinguish it, to isolate it and delimit it as a separate life; then it requires some exertion and good will to tolerate it in spite of its strangeness, to be patient with its appearance and expression, and kindhearted about its oddity:—finally there comes a moment when we are used to it, when we wait for it, when we sense that we should miss it if it were missing: and now it continues to compel and enchant us relentlessly until we have become its humble and enraptured lovers who desire nothing better from the world than it and only it.— But that is what happens to us not only in music: that is how we have learned to love all things that we now love. In the end we are always rewarded for our good will, our patience, fairmindedness, and gentleness with what is strange; gradually, it sheds its veil and turns out to be a new and indescribable beauty:— that is its thanks for our hospitality. Even those who love themselves will have learned it in this way: for there is no other way. Love, too, has to be learned.

—Friedrich Nietzsche

You can be shaped, or you can be broken. There is not much in between. Try to learn. Be coachable. Try to learn from everybody, especially those who fail. This is hard. ... How promising you are as a Student of the Game is a function of what you can pay attention to without running away.

—David Foster Wallace

It's not necessary to tell all you know. It's not ladylike—in the second place, folks don't like to have someone around knowin' more than they do. It aggravates them. You're not gonna change any of them by talkin' right, they've got to want to learn themselves, and when they don't want to learn there's nothing you can do but keep your mouth shut or talk their language.

—Harper Lee

Anyone who isn't embarrassed of who they were last year probably isn't learning enough.

—Alain de Botton

All human beings should try to learn before they die what they are running from, and to, and why.

—James Thurber

Pain is a part of growing-up. It is how we learn.

—Dan Brown

Do you train for passing tests or do you train for creative inquiry?

—Noam Chomsky

And always, there was the magic of learning things.

—Betty Smith

There are no mistakes, no coincidences. All events are blessings given to us to learn from.

—Elizabeth Kubler-Ross

Bad times have a scientific value. These are occasions a good learner would not miss.

—Ralph Waldo Emerson

To learn and not to do is really not to learn. To know and not to do is really not to know.

—Stephen R. Covey

Belief gets in the way of learning.

—Robert A. Heinlein

Struggling and suffering are the essence of a life worth living. If you're not pushing yourself beyond the comfort zone, if you're not demanding more from yourself—expanding and learning as you go—you're choosing a numb existence. You're denying yourself an extraordinary trip.

—Dean Karnazes

I would teach children music, physics, and philosophy; but most importantly music, for the patterns in music and all the arts are the keys to learning.

—Plato

The ability to learn is the most important quality a leader can have.

—Sheryl Sandberg

Learn everything. Fill your mind with knowledge—it's the only kind of power no one can take away from you.

—Min Jin Lee

Strange about learning; the farther I go the more I see that I never knew even existed. A short while ago I foolishly thought I could learn everything—all the knowledge in the world. Now I hope only to be able to know of its existence, and to understand one grain of it. Is there time?

—Daniel Keyes

Women need to shift from thinking ‘I’m not ready to do that’ to thinking ‘I want to do that—and I’ll learn by doing it.’

—Sheryl Sandberg

Learn to like what doesn’t cost much.

Learn to like reading, conversation, music.

Learn to like plain food, plain service, plain cooking.

Learn to like fields, trees, brooks, hiking, rowing, climbing hills.

Learn to like people, even though some of them may be different...different from you.

Learn to like to work and enjoy the satisfaction doing your job as well as it can be done.

Learn to like the song of birds, the companionship of dogs.

Learn to like gardening, puttering around the house, and fixing things.

Learn to like the sunrise and sunset, the beating of rain on the roof and windows, and the gentle fall of snow on a winter day.

Learn to keep your wants simple and refuse to be controlled by the likes and dislikes of others.

—Lowell Bennion

You’ll never reach perfection because there’s always room for improvement. Yet get along the way to perfection, you’ll learn to get better.

—Hlovate

Other people teach us who we are. Their attitudes to us are the mirror in which we learn to see ourselves.

—Alan Wilson Watts

If we are ever to grow, we ought to learn and always learn some more.

—C. JoyBell C.

I feel an endless need to learn, to improve, to evolve, not only to please the coach and the fans, but also to feel satisfied with myself. It is my conviction that there are no limits to learning, and that it can never stop, no matter what our age.

—Cristiano Ronaldo

Authors...look at things in a broader, milder and more affectionate way than I do, and because they know life better...I can learn from them.

—Vincent Van Gogh

Why waste time learning when ignorance is instantaneous?

—Bill Waterson

Death might appear to destroy the meaning in our lives, but in fact it is the very source of our creativity...Death is the engine that keeps us running, giving us the motivation to achieve, learn, love, and create.

—Caitlin Doughty

A good woodsman has only one scar on him. No more, no less.

—Haruki Murakami

You don't spend your life hanging around books without learning a thing or two.

—Lemony Snicket

I tend to watch silently from the shadows. You learn a lot more that way.

—Sherrilyn Kenyon

The barrier during self-improvement is not so much that we hate learning, rather we hate being taught. To learn entails that the knowledge was achieved on one's own accord—it feels great—but to be taught often leaves a feeling of inferiority. Thus it takes a bit of determination and a lot of humility in order for one to fully develop.

—Criss Jami

Never try to be better than someone else. Learn from others, and try to be the best you can be. Success is the by-product of that preparation.

—John Wooden

Time is an unkind teacher, delivering lessons that we learn far too late for them to be useful. Years after I could have benefited from them, the insights come to me.

—Robin Hobb

I am concerned that too many people are focused too much on money and not on their greatest wealth, which is their education. If people are prepared to be flexible, keep an open mind and learn, they will grow richer and richer through the changes. If they think money will solve the problems, I am afraid those people will have a rough ride. Intelligence solves problems and produces money. Money without financial intelligence is money soon gone.

—Robert T. Kiyosaki

It wasn't in books. It wasn't in a church. What I needed to know was out there in the world.

—Robert Fulghum

The process of learning is a nonstop orgy of wonderment.

—Lev Grossman

If you are succeeding in everything you do, then you're probably not pushing yourself hard enough. And that means you're not taking enough risks. You risk because you have something of value you want to achieve. The more you do, the more you fail. The more you fail, the more you learn. The more you learn, the better you get.

—John Maxwell

I was bold in the pursuit of knowledge, never fearing to follow truth and reason to whatever results they led.

—Thomas Jefferson

The thing about anything in life is you have to get ready for it. Study, learn and in terms of acting, there's a lot to learn. The bigger culture you have in life, the better actor you'll be. You'll have more to pull on.

—Jacqueline Bisset

Search for the seed of good in every adversity. Master that principle and you will own a precious shield that will guard you well through all the darkest valleys you must traverse. Stars may be seen from the bottom of a deep well, when they cannot be discerned from the mountaintop. So will you learn things in adversity that you would never have discovered without trouble. There is always a seed of good. Find it and prosper.

—Og Mandino

By the time you're eighty years old you've learned everything. You only have to remember it.

—George Burns

Choose an attitude of wonderment, taking in all that is being said without assuming you already know what the speaker is talking about. Let go of jumping ahead to finish his or her thoughts. In order to learn you have to risk change...changing your mind!

—Dwight Frindt

It is generally a more productive day when you learn something from life rather than try to teach it something.

—Robert Brault

A single conversation with a wise man during the eating of a meal, is better than ten years' mere study of books.

—Chinese Proverb

If you're always Right then you're Too Smart to Learn.

—Arthur Guiterman

You owe the World for all you learn;
In Payment you should Teach in turn.

—Arthur Guiterman

Anyone who stops learning is old, whether this happens at 20 or at 80. Anyone who keeps on learning not only remains young, but becomes constantly more valuable, regardless of physical capacity.

—Henry Ford

You're never too old or too smart to learn.

—Mary Martensen

Every act of conscious learning requires the willingness to suffer an injury to one's self-esteem. That is why young children, before they are aware of their own self-importance, learn so easily; and why older persons, especially if vain or important, cannot learn at all.

—Thomas Szasz

When information is presented to students, it goes into the working memory of their brain. But information quickly fades away unless something is done to trigger its move into the brain's long-term memory where it is stored and recalled later. Multiple neurons in various regions of the brain need to fire simultaneously, repetitively, and strongly for information to be readily retrieved and used. Since memory is a vital part of learning, the shift to student-centered learning is crucial. Activities such as rhyming, movement, multi-modality input, hands-on lessons, discussion, participatory experiences, constructivism, emotional experiences, personal meaning, and relevance, must be an integral part of every teacher's daily lessons.

—Bill Page

Learning involves feelings, attitudes, and the whole child. Emotions drive learning. We learn in direct proportion to the strength of our feelings—especially our likes and dislikes. This is why information about our hobbies and interests is learned so easily. Why a baseball lover can recite players’ names and statistics. Emotions are why we remember the person who sat behind us in the 7th grade, but can’t remember the name of someone we met yesterday.

—Bill Page

Learning is a lifetime process, but there comes a time when we must stop adding and start updating.

—Robert Brault

A watched child never learns.

—Robert Brault

One of the most glaring disparities between black and white students is in their enrollment in Advanced Placement and other higher-level courses. Researchers...have found that some teachers’ expectations for black students are lower than they are for white students, and these factors affect tracking decisions as well as students’ perceptions about their own abilities throughout their learning careers.

—Michael Sadowski

Researchers identified several common practices among the successful schools. These include:

- Providing clear and public standards for what all students should learn at benchmark grade levels.
- Offering those students challenging, standards-based curricula. According to the study, fewer than half of U.S. Latino high school students take Algebra 2, while nearly two-thirds of their white peers tackle the subject. Similar patterns exist in Chemistry.
- Providing extra instruction to students as needed. Rigorous classes can improve student achievement, but some students require extra support to succeed in these courses, the researchers say.
- Ensuring that teachers are well prepared to teach their subjects. ...
- Closing funding gaps. In most states, the study noted, districts with high numbers of minority students receive far less money per student than districts with the fewest minority students. Therefore, to narrow the achievement gap, states must first close the funding gap.

—Reino Makkonen

Student learning is actually enhanced when teachers consider diversity an intellectually interesting opportunity and use it as a way to enrich the classroom experience. Students hear a variety of perspectives and learn to weigh other points of view while rethinking their own ideas, interpretations, and ways of doing things. This involves embracing and building on the variety of cultural and experiential differences that all students bring to their learning.

—Judith A. Langer

Feedback to students assumes many forms and serves many purposes. Public praise recognizes student achievements; probing questions can assess student understanding; and a simple nod or written comment can encourage continued effort. Ultimately, feedback serves as an indispensable step in the learning process by extending instruction beyond the initial question or activity.

—Andrew S. Latham

Teacher expectations of their students reaching high levels of achievement regardless of background is one of the distinguishing characteristics of effective schools....The tone for establishing high expectations starts with principals who must have high expectations for themselves, for faculty members, and for students. They help establish and capitalize on the concept of the self-fulfilling prophecy by modeling appropriate behavior.

—Marvin Fairman and
Elizabeth Clark

Dozens of studies have shown learning and comprehension improve when students are taught to ask deep questions during reading, listening, or studying. Teachers can also promote deeper reasoning by asking thought-provoking questions that challenge common assumptions. For example, asking ‘Why is it good for a forest to periodically have forest fires?’ Challenges the assumption that fires are always bad and prompts students ‘to consider deeper explanatory mechanisms and principles of ecology.

—Carla Thomas McClure

The purpose of intermediate quizzes is not to assign grades or to evaluate performance. It’s to help students identify what they have not learned so that they can use their study time more effectively. Some quizzes can be done as homework. If the textbook publisher’s Web site includes self-checking quizzes, encourage students to use them. These may offer immediate feedback and study aides.

—Carla Thomas McClure

Each youngster proceeds at his own pace, but the learning curve of a child is fairly predictable. Their drive to learn is awesome, and careful adults can nourish it. The biggest mistake is pushing a child too hard, too soon.

—Barbara Kantrowitz &
Pat Wingert

The job of a teacher is first and foremost to instruct, not to manage. Yet management and instruction are inherently interdependent—in order for the learning environment to be at its best, both elements must be present, and working side by side, all the time.

—Elizabeth A. Wilson

Effects of teacher quality persist. One early study found that, all else being equal, children who had a particularly good teacher in second grade continued to outperform their peers in third, fourth, and fifth grade.

—Elizabeth Barrett
Kidder

The obligation of the American common public schools is to educate all the children of all the people, and failure to honor that obligation will eventually endanger the very fabric of American society. The secret is for principals to take seriously and thoughtfully their roles as educational leaders, to resist the popular ‘easy answers’ and to search for ways to cast all students in active learner roles in programs which increasingly emphasize higher cognitive processes.

—James Albrecht

Authentic achievement is described as intellectual accomplishments that are worthwhile, significant, and meaningful, such as those undertaken by successful adults. For students, we define authentic academic achievement through three criteria critical to significant intellectual accomplishment: construction of knowledge, disciplined inquiry, and the value of achievement behind school.

—Fred M. Newmann

Instruction is most effective when it is personalized—when we sufficiently honor learners’ interests, curiosity, strengths, contributions, and prior knowledge, making learners feel that they are an important part of something larger than themselves.

—Grant Wiggins and
Jay McTighe

School is in business to cause and promote learning. It should therefore model for all institutions what it means to be a learning organization. A school is not merely place that expects students learn; it must encourage and support everyone's learning.

For a school to be a model learning organization, all faculty members should be professional learners: They should engage in deep, broad study of the learning they are changed to cause. What works? What doesn't? Where is student learning most successful, and why? How can we learn from that success? Where are students struggling to learn, and why? What can we do about it? Effectively tackling these questions is what the 'professional' in 'professional practice' means.

—Grant Wiggins and
Jay McTighe

IDENTIFIABLE CHARACTERISTICS OF ACHIEVERS

- Achievers are self-reliant and feel responsible for their actions. They don't blame circumstances for failure. Adults, therefore, should encourage student initiative to do something useful and productive on their own.
- Achievers want to do a good job; they have pride in their work. Adults, therefore, should praise the quality of the work more than the students themselves.
- Achievers set medium-risk goals, not impossible goals or inconsequential goals. Adults, therefore, should guide students to goals that are challenging, but possible.
- Achievers plan with some thought and care. They consider the difficulties and obstacles, as well as the available resources and assistance. They don't just 'shoot from the hip.' Adults, therefore, should encourage students to discuss obstacles including personal fears or insufficient skills, as well as offer advice on planning and organizing tasks.
- Achievers keep working at the job and check their progress. They divide the task into manageable parts, and check progress as it occurs. They seek feedback from facts, friends, teachers, and parents. Adults, therefore, should offer positive but realistic feedback and encourage students to receive it from their friends.

—Scott Thompson

Students learn best where there is courtesy, friendliness, respect, and trust on both sides of the desk. In an effort to create better schools for middle-level students, teachers and administrators need to consider not only buildings, materials and equipment, but also the attitudes and enthusiasm the staff, students, and parents share about what goes on in that building. These make the difference.

—Robert O. Johnson

Teacher expectations have been linked to student achievement in two ways. Directly, teacher expectations affect the amount of time devoted to instruction, the time spent interacting with students, and the quality of materials and activities used. High expectations for students motivate teachers to better quality instruction. Indirectly, teacher expectations are transmitted to students and form the students' expectations and sense of the worth of academic work.

—James Weber

The evidence is clear: America's boys are being left behind by current practices in the classroom....Boys are dropping out of high schools in significant numbers, failing to complete college degrees, and behaving more violently.

We should pay close attention to statistics that track these trends, seriously regard the research, and immediately incorporate changes into our elementary and secondary schools to bring boys back onto an environment that motivates them to learn to their fullest.

The number of boys enrolling in colleges and universities nationwide is declining....Even in the hard sciences and engineering, where males traditionally have dominated, the margin is narrowing. And data compiled by the U.S. Department of Education indicate females are more apt than males to complete college-preparatory courses and to finish their college degrees....Boys account for 70% of the D's and F's in schools. Boys also account for two-thirds of disability diagnoses and represent 90% of discipline referrals.

—Janet Mulvey

Researchers...dispel the myth that, for most of the children in poverty, academically challenging work in mathematics and literacy should be postponed until they are 'ready'—that is, until they have acquired full mastery of basic skills. Although such students are often lacking in certain basic skills, they can acquire these skills the same time that they gain advanced skills (which provide a broader, more meaningful context for learning 'the basics.'

—Michael S. Knapp,
Patricia M.
Shields, and
Brenda J. Turnbull

The achievement gap is the gap between students of different racial groups whose parents have roughly the same amount of education. It concerns me that black kids whose parents have college degrees on average have much lower test scores than white kids whose parents have college degrees. You can take just about any level of parental education and we have these big gaps.

—Ronald Ferguson

First, teachers confident of their own abilities actually build confidence for learning in students. Second, confidence inspires students to commit the effort necessary to improve. Third, that effort leads to real development, which becomes the foundation for increased confidence at the next level. Success increases confidence, and effort leads to more learning and success. Make no mistake: Instilling confidence is a vital key to learning and development....Research shows that student achievement is significantly and positively related to the faculty's collective conviction regarding their power to succeed with students. In fact, it has been found that a faculty's strong collective sense of confidence in its power to succeed with students has a much greater impact on student achievement than students' socioeconomic status. This means that the degree to which you believe in your own power to make a difference coupled with the sense of power shared with your colleagues to work together to find solutions, can increase students' ability to overcome the most serious learning obstacles.

—Paula R. Johnson

Specific word instruction should:

- Focus on words that are useful to know in many situations and that are essential to understand texts.
- Go beyond definitions of words, with clear explanations and opportunities to use, discuss and analyze target vocabulary.
- Involve multiple exposures to target words.
- Engage students in active and deep-processing of words and word associations.

—Sarah Twiest

A new study examining why similar California schools vary widely in student achievement produced some surprising results: Involved parents and well-behaved youngsters do not appear to have major effects on how well elementary students perform on standardized tests....the strongest elements in high-performing schools are linking lessons closely to state academic standards, ensuring there are enough textbooks and other teaching materials, carefully and regularly analyzing student performance and putting a high priority on student achievement....These criteria show that poverty and other challenges need not keep students from doing well.

—Jean Merl

Parents have always known that it matters a lot which teachers their children get. That is why those with the time and skills to do so work very hard to assure that, by hook or by crook, their children are assigned to the best teachers...Recent research proves that parents have been right all along.

—Kati Haycock

Research suggests that what or how well students learn in a particular situation depends to a great extent on previous experience and learning. More than one-half of the achievement differences among students at any grade level can be attributed to differences already present when the students enter that grade level. Furthermore, these differences increase substantially with time to the point where they are more than 10 times as large among high school juniors as among first grade students. As currently practiced, schooling is far less influential than prior learning (learning history) on subsequent learning.

—Lorin W. Anderson

Student learning histories are at least partly psychological in nature. Successful or unsuccessful learning experience over time have profound consequences for the ways that students approach (or avoid) new learning situations. Students who have been successful in school tend to approach new situations with a certain amount of confidence, interest, and positive emotion. Those who have experienced a great deal of failure tend either to avoid new situations or approach them with anxiety, trepidation, and negative emotion.

It is hardly surprising that highly verbal students with good knowledge and skills and a self-assured, positive approach to new learning do very well in school. Conversely, students who have few verbal skills, or have acquired little useful knowledge and skills, or have experienced little in the way of school success, do very poorly. A student's learning history is an important determiner of future learning. Put simply, both learning and failing to learn are cumulative.

—Lorin W. Anderson

Kids will meet the standards you expect of them. Society in general has bought into the idea that demographics have something to do with the ability to learn. If you're poor, you may not have access to trips to Paris, but you can still learn.

—Trennis Harvey

Educators cannot overlook the persistent achievement gap between black boys and their peers. These patterns are not going away and are not limited to one local area. Wherever I go, African American boys are at the bottom.

—Carlton Jordan

People don't learn subject matter or skills unless they want to. Motivation is the basic energy that fuels a student's learning of the basics—and the delights—of education. Therefore, the main question for our schools is not what subjects and skills to teach (although we should be clear about that) but how to motivate students to learn and go on learning.

—Eric W. Johnson

Nearly all children can learn from quality literature, nearly all can learn a second language, and nearly all can benefit from studying the important concepts of algebra. Some will learn more, some less. But tracking excludes many children from ever being in classes where these 'high status' subjects are taught.

—John I. Goodlad and
Jeannie Oakes

In classrooms that produce high levels of learning, all components of the curriculum are aligned to create a cohesive program of accomplishing instructional purposes and goals.

—Jere Brophy

The inquiring, questioning, probing, hypothesizing kind of intellectual endeavor often associated with learning is not usually found in classrooms.

—John I. Goodlad and
Jeannie Oakes

Rather than the typical classroom patterns of children of the same age engaged in competitive, whole-group instruction, students need to be clustered in small groups exchanging ideas, sometimes working on separate but interrelated tasks, and generally helping each other learn.

—John I. Goodlad and
Jeannie Oakes

When teachers promote rote memorization as a single strategy, they foster only limited short-term retention of information. High school and college students are well versed at retaining content knowledge long enough to take exams, but dreadfully inept at maintaining that knowledge in long-term memory. To achieve this, students must create meaningful connections between what they already know and what they are attempting to learn. In other words, the new information must take on personal relevance. This type of learning—making connections—requires students to use some form of elaboration.

—Claire Weinstein,
D. Scott Ridley,
Tove Dahl, and
E. Sue Weber

Teachers can develop fluency and flexibility in their students' elaborations by encouraging a broad list of questions representing a variety of different techniques (analogies, transformations, comparing-contrasting, and the like). To access one's repertoire of strategies, one must often generate and answer questions about the material, such as the following:

- What is the main idea of this story?
- If I lived during this period, how would I feel about my life?
- If this principle were not true, what would that imply?
- What does this remind me of?
- How could I use this information in the project I am working on?
- How could I represent this in a diagram?
- How do I feel about the author's opinion?
- How could I put this in my own words?
- What might be an example of this?
- How could I teach this to my dad?
- Where else have I heard something like this?
- If I were going to interview the author, what would I ask her?
- How does this apply to my life?
- Have I ever been in a situation where I felt like the main character?

Students should practice generating and using these types of questions in different contexts. Learning about elaboration strategies and how to use them, like any procedural skill, requires practice, with feedback. With time and practice, students realize that using elaboration is easy and useful in a variety of learning situations.

—Claire Weinstein,
D. Scott Ridley,
Tove Dahl, and
E. Sue Weber

EIGHT STRATEGIES TO IMPROVE RETENTION OF LEARNING

- Place new learning at the beginning of a learning sequence and a student review at the end. Use the in-between time for practice.
- Find ways to link new learning to something the student already knows and therefore has the most relevance.
- Keep in mind the influence already in the student's memory will have on new learning. Find ways to have this old learning help and not interfere with new material.
- Provide a variety of unique and clear verbal cues that students can use to tag the new learning accurately before storage.
- Use simple diagrams, graphs, or pictures to help students with visual cues.
- Space out the new material so the learner has time to rehearse it and attach meaning to it.
- Remember that massed practice is for immediate learning, but that distributed practice in short, intense periods is what leads to retention.

- Organize the new material so students can easily classify and link it with the appropriate network in long-term-memory.

—David A. Sousa

Almost all classrooms have wooden, steel, or plastic chairs and desks for students. When a person sits on a chair constructed from those materials, approximately 75 percent of the total body weight is support on only four square inches of bone. The resulting stress on the tissues of the buttocks often causes fatigue, discomfort, and the need for frequent postural change. Wouldn't it seem obvious that someone, somewhere, must have conducted extensive research and revealed that all children learn most easily when sitting up straight in hard chairs? That research was never done....Classroom design affects at least 20 percent of secondary students, for whom achievement is either increased or decreased based where they are permitted to work. Therefore, every classroom should provide both formal and informal types of seating.

—Kenneth Dunn and
Rita Dunn

The social nature of knowledge and learning: When students talk to each other, they rehearse the terminology, notational systems, and manner of reasoning in a particular domain, thus reducing the individual burden of complete mastery of material while keeping the vision of the entire task in view. By building upon the social nature of learning, we may be able to solve some of the problems of mechanistic and fragile knowledge that seem to have plagued the American educational system.

—Gaea Leinhardt

OBSERVATIONS ON LEARNING:

- Every student can respond positively to some effective teaching. There is some technique which can reach every student in a given class; it is up to the teacher to find that technique.
- Teaching is not what one does to another, but rather what takes place in the presence of learning. The teacher and the students are not members of alien camps, but are engaged in the same contest, with both winning when learning takes place.
- The teacher, in perhaps the most important role, can bring into the classroom an attitude of inquiry, causing the student to sort out and solve problems under the teacher's guidance and motivation. This forces the student to take a stand on issues presented; the student can no longer be neutral. Inquiry often arises when there is some problem presented which needs resolving. Here students are often dared by the teacher to find the answers. Most real-world problems require such problem-solving skills.

- Much learning is private. A good teacher encourages students, based on their maturity level, to take charge of their own education as soon as possible. The teacher is available when needed. Classroom harmony and achievement are related. The teacher must set up an atmosphere where students can work toward goals, approaching a task with security and confidence.
- A given school is only as good as each individual teacher in that school. The teacher is the most important variable in the learning process, regardless of excellent equipment and luxurious learning environments.

—Hilmar Wagner

PRACTICES THAT RESULT IN SUBSTANTIALLY IMPROVED STUDENT ACHIEVEMENT:

Tutoring. Tutors provide one-on-one attention over a period of time on skills relating to standards.

Early childhood programs. Programs include developmentally appropriate learning experiences for 3- and 4-year-olds.

Behavioral classroom techniques. Teachers make frequent use of teaching cues, active engagement, and reinforcement.

Parental involvement. Parents engage in activities designed to buttress the school's standards and curriculum.

Classroom management skills. Good training for teachers on managing students makes more time for instruction.

Time on task. Achievement does vary according to how much instructional time is spent on a subject.

—Gordon Cawelti

The positive impact of both father and mother providing parenting and support to a student is illustrated by the fact that 85 percent of all high achievers...live with both parents.

—Hillary Motsinger

Achievement gaps among different groups of students have concerned government and education leaders for many years. In the 1960s, President Lyndon Johnson's 'War on Poverty' focused directly on inequalities in the educational achievement of economically disadvantaged students and their more advantaged counterparts. The *Economic Opportunity Act of 1964*, which established the *Head Start* program, and the *Elementary and Secondary Education Act of 1965*, which created the *Title I* and *Follow Through* programs, were specific attempts to address these gaps in educational attainment. The *No Child Left Behind* [2001] legislation revived these concerns.

—Thomas R. Guskey

There are three important differences between adult and youthful learners: adult learners bring a greater background of life experiences to the learning situation; while the ability of adults to learn does not necessarily change, the rate of learning may diminish; and the adult learner is in the learning situation out of personal or professional need, not compulsion.

—M. D. Richardson and
R. L. Prickett

Alexander Kapp, a German school teacher, coined the term andragogy in relation to the education theories of Plato. Developed mostly in Europe, andragogy is...used by instructors working with adults. Andragogy is taken from the Greek words that mean 'leading man,' and is defined as the art and science of helping adults learn.

—M. D. Richardson and
R. L. Prickett

MALCOLM KNOWLES FIVE BASIC PRINCIPLES OF ADULT LEARNING THEORY:

- Adults are motivated to learn as they experience needs and interests that learning will satisfy; therefore, these are the appropriate starting points for organizing adult learning activities.
- Adult orientation to learning is life-centered; therefore, the appropriate units for organizing adult learning are life situations not subjects.
- Experience is the richest resource for adult learning; therefore, the core methodology of adult education is the analysis of experience.
- Adults have a deep need to be self-directing; therefore, the role of the teacher of adults is to engage in a process of mutual inquiry, rather than to transmit knowledge to adults and evaluate their conformity to the information.
- Individual differences among people increase with age; therefore, adult education must make optimal provision for differences in style, time, place, and pace of learning.

—M. D. Richardson and
R. L. Prickett

To those professionals dealing with adult learners, particularly principals, a new orientation is needed because traditional pedagogical styles will not work effectively with adult learners. A major reason for the failure of most in-service activities conducted by principals is a failure to understand andragogy. To be successful, principals must use andragogical concepts when organizing and conducting in-service activities.

Teachers and other staff members must be treated as adults, not students. Staff development activities should reflect the previous experiences of teachers and staff, their ability to be self-motivated, and the fact they are professionals.

Adult learners, whether faculty or staff, desire concrete, hands-on, practical information....Learning activities for faculty and staff should be characterized by flexibility and creativity, not rote memory or stale repetition....An informal and open environment, in which teachers have the opportunity to share and discuss problems of importance to them, is imperative to effective adult learning.

—M. D. Richardson and
R. L. Prickett

Brain research has confirmed what we always suspected: children's peak learning takes place from birth to age 3, before they ever set foot in kindergarten. It is during this optimum 'learning window that the brains of infants and toddlers are almost constantly stimulated as they are talked to, sung to, held, and touched.

—Samuel G. Sava

Teachers can help students learn by providing affirmative and corrective verbal feedback immediately after a student response. This feedback not only corrects inappropriate responses, but also reinforces correct ones.

—George W. Chilcoat

Knowledge and skill have traditionally been the mainstays of American education. We want students to be knowledgeable about history, science, geography, and so on. We want students to be skillful in the routines of arithmetic, the craft of writing, the use of foreign languages. Achieving this is not easy, but we work hard at it. So with knowledge and skill deserving plenty of concern and getting plenty of attention, why pursue understanding? While there are several reasons, one stands out: Knowledge and skill in themselves do not guarantee understanding. People can acquire knowledge and routine skills without understanding their basis or when to use them. And, by and large, knowledge and skills that are not understood do students little good! What use can students make of the history or mathematics they have learned unless they have understood it?

—David Perkins

Learning is a form of problem solving that involves analyzing a learning task and devising a strategy appropriate for that particular situation....A learning strategy is a complete plan one formulates for accomplishing a learning goal; and a learning tactic is any individual processing technique one uses in service of the plan.

—Sharon J. Derry

IMPORTANT PRINCIPLES ABOUT SELF-DIRECTED LEARNING:

1. The plan that one uses for accomplishing a learning goal is a person's learning strategy: Learning strategies may be simple or complex, specific or vague, intelligent or unwise. Obviously, some learning strategies work better than others.
2. Learning strategies require knowledge of specific learning skills, or 'tactics,' such as skimming, attending to chapter structure, and memorization techniques. The ability to devise appropriate learning strategies also requires knowledge about when and when not to use particular types of learning tactics.
3. Learning is a form of problem solving that involves analyzing a learning task and devising a strategy appropriate for that particular situation. Different learning situations may call for different strategies.
4. In most school learning situations, strategies should, be devised with the aim of creating usable, rather than inert, knowledge. Clearly, not all learning strategies will lead to the formation of usable knowledge structures.

—Sharon J. Derry

Direct influences have a greater impact on learning than indirect influences. Direct influences include the amount of time a teacher spends on a topic and the quality of the social interactions teachers have with their students. Indirect influences include policies adopted by a school, district, or state, and organizational features such as site-based management.

—Margaret C. Wang,
Geneva D. Haertel,
and Herbert J.
Walberg

The most influential [learning] category, classroom management, includes group alerting, learner accountability, smooth transitions, and teacher 'with-it-ness.' Effective classroom management increases student engagement, decreases disruptive behaviors, and makes good use of instructional time.

—Margaret C. Wang,
Geneva D. Haertel,
and Herbert J.
Walberg

There has to be darkness for light to be known.

—Stacey Abrams