

BEST QUOTES ON CURRICULUM

Human intelligence is too rare and precious a thing to squander on a haphazard program of instruction.

—Philip H. Phenix

We must prepare students for their future not our past.

--David Thornburg

We are now at a point where we must educate our children in what no one knew yesterday, and prepare our schools for what no one knows yet.

--Margaret Mead

It is easier to move a cemetery than to affect a change in curriculum.

--Woodrow Wilson

The curriculum is so much necessary raw material, but warmth is the vital element for the growing plant and for the soul.

--Carl Jung

Grouping kids by age for instruction makes about as much pedagogical sense as grouping them by height.

—Deborah Ruf

Some countries where the school systems are held up as models for our schools have been going in the opposite direction of the U.S., giving less homework and implementing narrower curricula built to encourage deeper understanding rather than broader coverage.

--Karl Taro Greenfeld

As society rapidly changes, individuals will have to be able to function comfortably in a world that is always in flux. Knowledge will continue to increase at a dizzying rate. This means that a content-based curriculum, with a set body of information to be imparted to students, is entirely inappropriate as a means of preparing children for their adult roles.

—John Taylor Gatto

Do not teach too many subjects and what you teach, teach thoroughly.

—Alfred North
Whitehead

The ultimate validation of a curriculum lies in its results; that is, did it help students achieve the desired outcomes?

—Grant Wiggins and Jay
McTighe

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

There is no substitute for struggling through the questions regarding what we teach and why we teach it. Busy teachers tend to grab anything that is already finished. They are convinced that ‘re-inventing the wheel’ is a waste of time. Not so... the process of writing a curriculum is what gives meaning to the product. The value of writing the curriculum cannot be passed on to someone else by merely handing them the document.

—Pete Rynders

It is indeed one of the great ironies of our time, that having designed computers that can perform the function of information storage and retrieval better than any human, we continue to emphasize in our teaching and testing, information storage and retrieval.

--Edward T. Clark

In a democracy, the last thing we need is a one-size-fits-all curriculum with one single set of goals for everyone.

--Elliot W. Eisner

It is an absurd curriculum that makes a prospective dressmaker study quadratic equations or Boyle’s Law.

--A. S. Neill

Curriculum design and delivery face one fundamental problem in schools. When the door is shut and nobody else is around, the classroom teacher can select and teach just about any curriculum he or she decides is appropriate.

— Fenwick W. English

Good curriculum managers are those who demand coordination among ‘the written, taught, and tested curricula.’ Curriculum managers must align these instructional dimensions in a workable format that is usable and will be monitored in schools. Ideally, program budgets would be intermeshed with curriculum management as well.

Such managers are a rare breed. Thus, curriculum guides, oblivious to the limited time available to teach, are largely ignored, even by those who write them; curriculum goals aren’t tied to assessment of outcomes; and tests are given so that the results can be turned into pretty graphs, not to shape instruction.

The main nemesis in this managerial nightmare is teacher autonomy, whereby curriculum is ‘pocket-vetoed’ in the classroom. No school system can afford to allow its teachers to be independent subcontractors with complete latitude of ignoring the specifications of work by which the system will be measured, judged, and funded in the long run.

A managerially sound ‘technoculture’ would truly enhance student learning. If teacher enthusiasm were significantly dampened, if teacher-student dialogue were seriously curtailed, the cure could be worse than the disease.

—Fenwick W. English

Curriculum compacting is a flexible, research-supported instructional technique that enables high-ability students to skip work they already know and substitute more challenging content.

—Sally M. Reis and
Joseph S. Renzulli

There is already too much in the school curriculum these days. Most teachers don’t have enough time to teach what’s in the curriculum now. Ask them! And it is naive to assume we can solve the problem simply by helping teachers make more efficient use of time.

The problem is political, not technical. The claptrap in the American curriculum is the residue of our political system that decentralizes decisions to the lowest common denominator—local school boards. Some people want to use the schools to solve every social problem out there, from bicycle safety to AIDS. Others lobby for devoting school time to special interests, from State Bird Day to celebrations of local historical figures and other clutter. The schools can’t do it all. The solution? A set of national priorities would help. State legislators who knew how to say ‘no’ to lobbyists would also help. In our competitor countries, curriculum design is handled by their ministries of education. That may be the only real solution left. It’s simply too important to let everyone vote on it.

—Fenwick English

It costs the same to send a person to prison or to Harvard. The difference is the curriculum.

—Paul Hawken

We have so much to cover and so little time to cover it. Howard Gardner refers to curriculum coverage as the single greatest enemy of understanding. Think instead about ideas to be discovered.

—Alfie Kohn

Instead of a national curriculum for education, what is really needed is an individual curriculum for every child.

—Charles Handy

You have to take enough time to get kids deeply involved in something they can think about in lots of different ways.

—Howard Gardner

Many creative people are polymaths, as historic geniuses including Michelangelo and Leonardo da Vinci were....The arts and sciences are seen as separate tracks, and students are encouraged to specialize in one or the other. If we wish to nurture creative students, this may be a serious error.

--Nancy Andreasen

Curriculum is like a suitcase. Every time you put something in, you have to take something out.

—John Davies

It is not enough to offer a smorgasbord of courses. We must insure that students are not just eating at one end of the table.

--A. Bartlett Giamatti

Information is doubling every 900 days...It takes about 10 years to get a textbook into print...Next, a school review committee spends two years evaluating the book...Finally the school adopts a brand new 12-year old book...and the students use it for five to seven years...How can a student keep current by reading a 19-year old book?

--William Banach

What is honored in a country will be cultivated there.

--Plato

Whatever is taught should be taught as being of practical application in everyday life and of some definite use. That is to say, the pupil should understand that what he learns is not taken out of some Utopia or borrowed from Platonic ideas, but is one of the facts which surround us, and that a fitting acquaintance with it will be of great value in life.

--John Amos Comenius

If we value independence, if we are disturbed by the growing conformity of knowledge, of values, of attitudes, which our present system induces, then we may wish to set up conditions of learning which make for uniqueness, for self-direction, and for self-initiated learning.

--Carl R. Rogers

There *is* only one curriculum, no matter what the method of education: what is basic and universal in human experience and practice, the underlying structure of culture.

--Paul Goodman

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CURRICULUM DEFINITIONS

Curriculum is that series of things which children and youth must do and experience by way of developing abilities to do the things well that make up the affairs of adult life; and to be in all respects what adults should be.

—J. Franklin Bobbit
(1918)

The curriculum is a succession of experiences and enterprises having a maximum life likeness for the learner . . . giving the learner that development most helpful in meeting and controlling life situations.

—Harold O. Rugg (1927)

Curriculum: all the experiences children have under the guidance of teachers.

—Hollis L. Caswell and
Doak S. Campbell
(1935)

The curriculum should consist of permanent studies-rules of grammar, reading, rhetoric and logic, and mathematics (for the elementary and secondary school), and the greatest books of the western world (beginning at the secondary level of schooling).

— Robert Hutchins
(1936)

The curriculum must consist essentially of disciplined study in five great areas: 1) command of mother tongue and the systematic study of grammar, literature, and writing. 2) mathematics, 3) sciences, 4) history, 5) foreign language.

— Arthur Eugene
Bestor Jr. (1956)

A sequence of potential experiences is set up in the school for the purpose of disciplining children and youth in group ways of thinking and acting. This set of experiences is referred to as the curriculum.

— B. Othanel
Smith (1957)

The curriculum is all of the learning of students which is planned by and directed by the school to attain its educational goals.

— Ralph Tyler (1957)

Curriculum consists of all the means of instruction used by the school to provide opportunities for student learning experiences leading to desired learning outcomes.

—Edward A. Krug
(1957)

The term curriculum is simply a name for the organised pattern of the school's educational program. A complete description of the curriculum has at least three components: (1) what is studied - the 'content' or 'subject matter' of instruction - (2) how the study and teaching are done - the 'method' of instruction - and (3) the various subjects are presented - the order of instruction.

—Philip H. Phenix (1958)

The curriculum should consist entirely of knowledge which comes from the disciplines... Education should be conceived as a guided recapitulation of the process of inquiry which gave rise to the fruitful bodies of organized knowledge comprising the established disciplines.

— Philip H. Phenix
(1962)

All curricula, no matter what their particular design, are composed of certain elements. A curriculum usually contains a statement of aims and of specific objectives; it indicates some selection and organization of content; it either implies or manifests certain patterns of learning and teaching, whether because the objectives demand them or because the content organization requires them. Finally, it includes a program of evaluation of the outcomes.

—Hilda Taba (1962)

Curriculum: A set of abstractions from actual industries, arts, professions, and civic activities, and these abstractions are brought into the school-box and taught.

—Paul Goodman (1963)

Basically the curriculum is what happens to children in school as a result of what teachers do. It includes all of the experiences of children for which the school should accept responsibility. It is the program used by the school as a means of accomplishing its purpose.

—Albert I. Oliver (1965)

Curriculum is a structural series of intended learning outcomes. Curriculum prescribes (or at least anticipates) the results of instruction. It does not prescribe the means... To be used in achieving the results.

—Mauritz Johnson
(1967)

Curriculum is a set of events, either proposed, occurring, or having occurred, which has the potential for reconstructing human experience.

—Duncan and Frymier
(1967)

Curriculum is a sequence of content units arranged in such a way that the learning of each unit may be accomplished as a single act, provided the capabilities described by specified prior units (in the sequence) have already been mastered by the learner.

—Robert Gagne (1967)

The curriculum embodies all the teaching-learning experiences guided and directed by the school.

—Robert S. Harnack
(1968)

Curriculum: situations or activities arranged and brought into play by the teacher to effect student learning.

— Shaver and Berlak
(1968)

Curriculum is the contrived activity and experience- organized, focused, systematic- that life, unaided, would not provide.

—P. W. Musgrave (1968)

The curriculum is now generally considered to be all of the experiences that learners have under the auspices of the school.

— Ronald Doll (1970)

We shall take the term ‘curriculum’ to be a label for a programme or course of activities which is explicitly organised as the means whereby pupils may attain the desired objectives, whatever these may be.

—Hirst and Peters
(1970)

Curriculum is the offering of socially valued knowledge, skills, and attitudes made available to students through a variety of arrangements during the time they are at school, college, or university.

—Terrel Bell (1971)

Curriculum: All the activities and experiences for which the student is responsible, involving the interaction of the student and the teacher in an educational situation containing content, process, and values for the purpose of facilitating the student’s progress toward maturity.

--Northern Illinois
University (1972)

We define curriculum as a plan for providing sets of learning opportunities to achieve broad goals and related specific objectives for an identifiable population served by a single school center for persons to be educated.

—J. Galen Saylor,
William M.
Alexander, and
Arthur J. Lewis
(1974)

Curriculum is ‘the educational program of the school’ and divided into four basic elements: 1) program of studies, 2) program of experiences, 3) program of service, 4) hidden curriculum.

— Albert Oliver (1977)

Curriculum is the content pupils are expected to learn.

—Smith and Orlovsky
(1978)

The curriculum is all of the experiences that individual learners have in a program of education whose purpose is to achieve broad goals and related specific objectives, which is planned in terms of a framework of theory and research or past and present professional practice.

—Michael R. Hass (1980)

Curriculum is:

- That which is taught in schools
- A set of subjects.
- Content
- A program of studies.
- A set of materials
- A sequence of courses.
- A set of performance objectives
- A course of study
- Is everything that goes on within the school, including extra-class activities, guidance, and interpersonal relationships.
- Everything that is planned by school personnel.
- A series of experiences undergone by learners in a school.
- That which an individual learner experiences as a result of schooling.

—Peter F. Oliva (1984)

What do we mean by the term *curriculum*? Curriculum may be defined as a coherent plan of instruction and learning, integrating content, affect, and action. Curriculum serves as the basis for teachers' and students' active involvement in the construction of knowledge. The curriculum is not conceived as a rigid structure to be implemented by teachers. Rather, curriculum is a text to be interpreted in manifold ways leading to varied and productive uses. Curriculum texts may appear in a variety of forms in the everyday context of schools.

--Miriam Ben-
Peretz (1986)

Curriculum is the formal and informal content and process by which learners gain knowledge and understanding, develop skills, and alter attitudes, appreciations, and values under the auspices of that school.

—Ronald C. Doll (1988)

Curriculum: That reconstruction of knowledge and experience systematically developed under the auspices of the school (or university), to enable the learner to increase his or her control of knowledge and experience.

— Daniel Tanner and
Laurel N. Tanner
(1988)

Curriculum is a master plan for selecting content and organizing learning experiences for the purpose of changing and developing learners' behaviors and insights.

—David G. Armstrong
(1989)

Curriculum is a goal or set of values, which are activated through a development process culminating in classroom experiences for students. The degree to which those experiences are a true representation of the envisioned goal or goals is a direct function of the effectiveness of the curriculum development efforts.

— Jon Wiles and Joseph
Bondi (1989)

Curriculum: the program, a plan, content, and learning experiences.

—Peter F. Oliva (1989)

A curriculum consists of those matters: A. That teachers and students attend to together, B. That students, teachers, and others concerned generally recognize as important to study and learn, as indicated particularly by using them as a basis for judging the success of both school and scholar, C. And the manner in which these matters are organized in relationship to one another, in relationship to the other elements in the immediate educational situation and in time and space.

— Decker Walker (1990)

Curriculum is those activities, processes, and structural arrangements as intended for, employed in, or experienced in the school and classroom for the purposes of fulfilling the educative function.

--M. Frances Klein (1991)

Curriculum is a plan that consists of learning opportunities for a specific time frame and place, a tool that aims to bring about behaviour changes in students as a result of planned activities and includes all learning experiences received by students with the guidance of the school.

— Goodlad and Su (1992)

Curriculum is answering three questions: what knowledge, skills and values are most worthwhile? Why are they most worthwhile? How should the young acquire them?

—Catherine Cornbleth
(1992)

Curriculum, when encompassed as a whole, yet reduced to its essentials, may be described as the process of thinking-through, facilitating, and assessing the learning of intended educational ends.

—Nancy R. Carwile
(1993)

Definitions of Curriculum

Definition 1: Curriculum is such 'permanent' subjects as grammar, reading, logic, rhetoric, mathematics, and the greatest books of the Western world that best embody essential knowledge.

Definition 2: Curriculum is those subjects that are most useful for living in contemporary society.

Definition 3: Curriculum is all planned learnings for which the school is responsible.

Definition 4: Curriculum is all the experiences learners have under the guidance of the school.

Definition 5: Curriculum is the totality of learning experiences provided to students so that they can attain general skills and knowledge at a variety of learning sites.

Definition 6: Curriculum is what the student constructs from working with the computer and its various networks, such as the Internet.

Definition 7: Curriculum is the questioning of authority and the searching for complex views of human situations.

Definition 8: Curriculum is all the experiences that learners have in the course of living.

—C. J. Marsh &
G. Willis (2003)

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Curriculum is a generic term with multiple meanings. It can refer to an organized field of study as well as to what educators want to teach students and what students actually learn in school. This discussion of curriculum is restricted to the latter meaning. In this context, curriculum is the substance of schooling.

Elliot Eisner identified three different types of curriculums: null, implicit, and explicit curriculums. The null curriculum is what is not taught and not learned in school; it is what is excluded from the opportunities that students have to learn. The implicit curriculum consists of those ideas, values, attitudes, and processes that are not deliberately planned and taught, but which students learn through a variety of channels, including teacher attitudes, school and classroom rules and regulations, social interactions in the classroom and on the playground and even the physical arrangement of the classroom. Spending more money on astroturf for the football field than for classroom supplies and materials, for example, sends a message about what is important at school. What students learn through these channels is usually not explicitly planned, rationally examined, or even within the consciousness of many educators. Students receive implicit curriculum messages simply as a result of being in school for a significant part of their lives. The messages from the implicit curriculum can be either positive or negative.

The explicit curriculum is generally what educators discuss. It is the content (broadly defined) that is planned, organized, taught, reviewed, extended and evaluated. It is what students consciously focus on while they are in class. It is what adults expect students to show evidence of having learned. Time, effort, and resources are devoted to defining the explicit curriculum. Curriculum guides are developed, textbooks selected, learning opportunities designed, worksheets duplicated, learning environments carefully arranged, teaching strategies chosen, and ways devised to evaluate student learnings. Then the success of these efforts is reported to a variety of interested groups. The focus of the explicit curriculum is on clearly defined, carefully organized, skillfully taught, and systematically evaluated content. The most common basis for defining the explicit curriculum is the accumulated wisdom of humankind, as scholars have created, discovered, defined, and organized it over the ages into disciplines.

—M. Frances Klein

The Latin root of the word *curriculum* means *racecourse*, but contemporary dictionaries succinctly define curriculum as ‘the courses offered by an educational institution’ (Webster’s 1983). M. J. Eash holds that curriculums consist of five components: a framework of assumptions about the learner and society; aims and objectives; subject matter with a given scope and sequence; transaction modes, for example, instructional means and learning environments; and evaluation. For additional specificity, the curriculum might be viewed as the sixteen ‘commonplaces of schooling’ which are: teaching practices, content or subject matter, instructional materials, physical environment, activities, human resources, evaluation, time, organization,

communications, decision making, leadership, goals, issues and problems, implicit (or 'hidden') curriculum, and controls or restraints.

—John Goodlad

The Seven Types of Curriculum Operating in School:

Curriculum is the systematic arrangement of content and educational learning experiences for the effective employment of human and material resources for the attainment of educational objectives.

1. Recommended Curriculum – proposed by scholars and professional organizations.

It may come from a national agency like the Department of Education (DepEd), Commission on Higher Education (CHED) Department of Science and Technology (DOST) or professional organization.

2. Written Curriculum – this includes documents, course of study or syllabi handed down to the schools, districts, division, department or colleges for implementation. Most of the written curriculums are made by the curriculum experts with the participations of the teachers. Examples of these are the Basic Education Curriculum (BEC). Another example is the written lesson plan of each classroom teacher made up of objectives and planned activities of the teachers.

3. Taught Curriculum – the different planned which are put into action in the classroom composed of taught curriculum. These are varied activities that are implemented in order to arrive at the objectives or purpose of the written curriculum.

4. Supported Curriculum – this refers to the support curriculum that includes materials, resources such as books, computers, audio-visual materials, laboratory equipment, playground, zoos, and other facilities.

5. Assessed Curriculum – this refers to a tested or evaluated curriculum. At the end of the teaching episodes, series of evaluation are being done by the teachers to determine the extent of teaching or to tell if the student is having a progress. Assessment tools like the pencil and paper test, authentic instruments like portfolio are being utilized.

6. Learned Curriculum – refers to the learning outcomes made by the students. Learning outcomes are indicated by the results of the tests and changes in between.

7. Hidden Curriculum – refers to the unplanned or unintended curriculum but plays an important role in learning.

—Allan Glatthorn

The 'hidden curriculum,' which refers to the kinds of learnings children derive from the very nature and organizational design of the public school, as well as from the behaviors and attitudes of teachers and administrators. Examples of the hidden curriculum might include the messages and lessons derived from the mere organization

of schools — the emphasis on: sequential room arrangements; the cellular, timed segments of formal instruction; an annual schedule that is still arranged to accommodate an agrarian age; disciplined messages where concentration equates to student behaviors were they are sitting up straight and are continually quiet; students getting in and standing in line silently; students quietly raising their hands to be called on; the endless competition for grades, and so on. The hidden curriculum may include both positive or negative messages, depending on the models provided and the perspectives of the learner or the observer.

— Leslie Owen Wilson

Curriculum is anything and everything that teaches a lesson, planned or otherwise. Humans are born learning, thus the learned curriculum actually encompasses a combination of all of the following — the hidden, null, written, political and societal etc.. Since students learn all the time through exposure and modeled behaviors, this means that they learn important social and emotional lessons from everyone who inhabits a school — from the janitorial staff, the secretary, the cafeteria workers, their peers, as well as from the deportment, conduct and attitudes expressed and modeled by their teachers. Many educators are unaware of the strong lessons imparted to youth by these everyday contacts

— Leslie Owen Wilson

While curriculum planners have tried for decades to define curriculum—often with very little guidance—two approaches can resolve the debate. The first is to use a simple definition that reflects how most educational leaders use the term: Curriculum is the skills and knowledge that students are to learn. A more complex approach is to analyze the several sources of curriculum; from this perspective there are eight different kinds:

The recommended curriculum derives from experts in the field. Almost every discipline-based professional group has promulgated curriculum standards for its field. Kendall and Marzano’s comprehensive report *Content Knowledge: A Compendium of Standards and Benchmarks for K-12 Education, 2nd Edition (1997)* is an excellent compilation of these standards.

The written curriculum is found in the documents produced by the state, the school system, the school, and the classroom teacher, specifying what is to be taught. At the district level, the documents usually include a curriculum guide and a scope-and-sequence chart; many school systems make their curriculum documents available through their databases and the Internet. The written curriculum also includes materials developed by classroom teachers. The written curriculum is the one usually meant by leaders who say, ‘We’re going to develop a mathematics curriculum.’

The supported curriculum is the one for which there are complimentary instructional materials available, such as textbooks, software, and multimedia resources.

The tested curriculum is the one embodied in tests developed by the state, school system, and teachers. The term ‘test’ is used broadly here to include standardized tests, competency tests, and performance assessments.

The taught curriculum is the one that teachers actually deliver. Researchers have pointed out that there is enormous variation in the nature of what is actually taught, despite the superficial appearance of uniformity. The learned curriculum is the bottom-line curriculum—what students learn. Clearly it is the most important of all. Two other types of curriculum—although not explicit and visible in school curriculum documents, materials, and tests—are also worth noting:

The hidden curriculum...is the unintended curriculum-what students learn from the school’s culture and climate. It includes such elements as the use of time, allocation of space, funding for programs and activities, and disciplinary policies and practices.

For example, if an elementary school allocates 450 minutes each week to reading and 45 minutes to art, the unintended message to students is that ‘art doesn’t matter.’

The excluded curriculum is what has been left out, either intentionally or unintentionally. Eisner terms this the ‘null curriculum,’ since it is not readily apparent. For example, U.S. history curricula often have omitted or covered only briefly such topics as the labor movement, the importance of religion in American life, or the internment of Japanese Americans during World War II. Gehrke, Knapp, and Sirotnik point out that the excluded curriculum is ‘powerful by virtue of its absence.’

—Allan A. Glatthorn,
Judy F. Carr and
Douglas E. Harris

The *intended curriculum* (recommended, adopted, official) serves as a documented map of theories, beliefs, and intentions about schooling, teaching, learning, and knowledge—evidence in the development of teacher proof curriculum. The *taught curriculum* (implicit, delivered, operational) where teacher beliefs begin altering the curriculum/teaching style. The *learned curriculum* is the gap between what is taught and what is learned—both intended and unintended.

—Larry Cuban

Societal curricula is...[the] massive, ongoing, informal curriculum of family, peer groups, neighborhoods, churches organizations, occupations, mass, media and other socializing forces that ‘educate’ all of us throughout our lives.

—C. E. Cortes

The *null curriculum*: That which we do not teach, thus giving students the message that these elements are not important in their educational experiences or in our society.

—Leslie Owen Wilson

Concomitant curriculum: What is taught, or emphasized at home, or those experiences that are part of a family's experiences, or related experiences sanctioned by the family. (This type of curriculum may be received at church, in the context of religious expression, lessons on values, ethics or morals, molded behaviors, or social experiences based on a family's preferences.)

—Leslie Owen Wilson

Schools have consequences not only by virtue of what they do not teach, but also by virtue of what they neglect to teach. What students cannot consider, what they don't process they are unable to use, have consequences for the kinds of lives they lead. There is something of a paradox involved in writing about a curriculum that does not exist. Yet, if we are concerned with the consequences of school programs and the role of curriculum in shaping those consequences, then it seems to me that we are well advised to consider not only the explicit and implicit curricula of schools but also what schools do not teach. It is my thesis that what schools do not teach may be as important as what they do teach. I argue this position because ignorance is not simply a neutral void; it has important effects on the kinds of options one is able to consider, the alternatives that one can examine, and the perspectives from which one can view a situation or problems.

—Elliot Eisner

Rhetorical curriculum: Elements from the rhetorical curriculum are comprised from ideas offered by policymakers, school officials, administrators, or politicians. This curriculum may also come from those professionals involved in concept formation and content changes; or from those educational initiatives resulting from decisions based on national and state reports, public speeches, or from texts critiquing outdated educational practices. The rhetorical curriculum may also come from the publicized works offering updates in pedagogical knowledge.

—Leslie Owen Wilson

Concomitant curriculum: What is taught, or emphasized at home, or those experiences that are part of a family's experiences, or related experiences sanctioned by the family. (This type of curriculum may be received at church, in the context of religious expression, lessons on values, ethics or morals, molded behaviors, or social experiences based on a family's preferences.)

—Leslie Owen Wilson

For the birds that cannot soar, God has provided low branches.

—Turkish Proverb

In a good school district the system should adapt to the child and not vice versa.

--Martin Buskin

There are two obvious methods in getting a full-grown girl into a bathing suit. Of course one can make the essential measurements and then select the garment which matches the measurements. One could, of course, select at random such a garment and then expect the figure to adjust to it. The latter method is well-known, since it is how many school courses are fitted to pupils.

--Unknown

If children do not learn the way we teach them, then we must teach them the way they learn.

--Dunn and Dunn

Our schools have become vast factories for the manufacture of robots. We no longer send our young to them primarily to be taught and given the tools of thought, no longer primarily to be informed and acquire knowledge; but to be 'socialized.'

--Robert Lindner

The arts are called liberal, because they enable those who practise them to live in freedom.

--Tirso de Molina

The textbook companies, and beyond them the school boards, simply do not permit authors the freedom to write their own books in their own way. Today, texts are written backward or inside out, as it were, beginning with public demand and ending with the historian. This system gives the publishers a certain security, since their books cannot be too far out of the mainstream. But, having minimized one kind of risk, they have created another, of a different order.

--Frances Fitzgerald

You cannot put the same shoe on every foot.

--Publius Syrus

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

--Unknown

There are obviously two educations. One should teach us how to make a living and the other how to live.

--James Truslow Adams

We must remind ourselves again that education is a people business in which the goals we seek and the things we try must eventually be judged in terms of the persons in the process.

--Robert Leeper

Education, whether of black man or white man, that gives one physical courage to stand up in front of a cannon and fails to give one moral courage to stand up in defense of right and justice, is a failure.

--Booker T. Washington

To send young men and women into today's world armed only with Aristotle, Freud and Hemingway is like sending a lamb into the lion's den. It is to delude them as well as ourselves. But if we give young men and women a useful skill, we give them not only the means to earn a good living, but also the opportunity to do something constructive and useful for society.

--Terrel H. Bell

There is such a thing as fashion in learning, just as in hair styles or clothes...It is the school administrator's job to be both responsive and responsible in surveying new approaches.

--Terrel H. Bell

Curriculum, methods, and the school-system itself have *always* been determined by social goals and National Goals, parental ambitions, and the need to baby-sit and police the young.

--Paul Goodman

Books are the least important apparatus in a school. All that any child needs is the three R's; the rest should be tools and clay and sports and theater and paint and freedom.

--A. S. Neill

John Dewey's Educational Formalism has turned America's schools into academic shopping malls, where students wander aimlessly among a host of competing educational boutiques whose only coherence is their presence under one roof. A pre-law student may know something about civil rights, but he thinks Washington, DC is in Washington state. An eighth-grader thinks that Latin is the language of Peru—it's in Latin America, isn't it? Students with this patchwork of cultural information no longer have a common language for the discussion of national issues or the communication of vital ideas.

--Robert Pattison

THE SABER-TOOTH CURRICULUM

Three fundamentals marked the first educational curriculum: (1) catching fish with bare hands, (2) clubbing tiny horses to death, and (3) frightening saber-toothed tigers with torches.

By studying those subjects in their 'schools' the stone-age people got along fairly well until there came a changed condition caused by the movement of ice from the north, the forerunner of the ice age.

The streams became muddied and fish could not be seen to catch with the bare hands, so someone invented the net, made of vines. The tiny horses fled and the antelope replaced them. The stone-agers invented antelope snares. The saber-toothed tigers died of pneumonia, but the big ice bear replaced them, and the stone-age men dug pits to trap them. So net-making, twisting antelopesnares and digging bear pits became the three essentials of life.

But the schools continued to teach fish-catching with the hands, horse-clubbing, and tiger-scaring because they had taught them for years. Some 'liberal' wanted to teach net-making, snare-making, and pit-digging but he was met with opposition. Some even wanted to do away entirely with the old subjects, but they aroused a storm and were called radicals.

The old subjects must be retained for their 'cultural value,' the school people contended. The proposed new subjects had no place in the curriculum.

The conservatives said: 'Training to catch non-existent fish with bare hands is the best way to achieve muscular coordination and agility; training in clubbing horses that do not exist is an education in stealth and ingenuity; practicing to frighten tigers that do not exist develops courage.' Some things are fundamental and sacred in education and must not be changed.

--Harold Benjamin

As to their studies, it would be well if they could be taught everything that is useful, and everything that is ornamental. But art is long, and their time is short. It is therefore proposed that they learn those things that are likely to be most useful and most ornamental, regard being had to the several professions for which they are intended.

--Benjamin Franklin

The unknowable future is not a sound basis on which to plan a curriculum.

--Elliot W. Eisner

Curriculum originally meant a race course, from Latin *currere*, to run, and there are still many today who believe, with good reason, that a curriculum is a run-around.

--Francis Griffith

When an educational program or technique doesn't yield the expected results it typically meets one of three fates: it's abandoned, it's analyzed again and again by successions of more-or less-qualified people who typically have little ability to enact real solutions, or it's patched with the easiest, quickest, and least expensive repair to be found. The reason is that unlike virtually all other professions, U.S. education lacks a technical culture, a common body of proven knowledge and technique that lets all members of a profession adapt and perform to the same standards of excellence, and to redefine those standards as technology progresses.

--Kenneth G. Wilson

The curriculum of the school should give the student access to the important cultural tools available through which intelligence can be expanded. Among the most important of these tools are the arts.

--Elliot Eisner

The fastest way to turn eager young students into 16-year-old dropouts is to expect too little of them...and 'dumb' down their education.

--Richard W. Riley

It makes little sense to spend a month teaching decimal fractions to fourth-grade pupils when they can be taught in a week, and better understood and retained, by sixth-grade students. Child-centeredness does not mean lack of rigor or standards; it does mean finding the best match between curricula and children's developing interests and abilities.

--David Elkind

As the body of knowledge grows and the complexities of human interaction proliferate, our choices become more critical. We are compelled to select from the vast store of our cultural panorama those concerns upon which our survival depends. We must continually refer back to the essential question, 'What is Man?' and make our curriculum choices on the basis of the answer.

--Charlotte Rostein

Tomorrow's education will include placing greater emphasis on character development.

--Ralph Tyler

If students have yet to meet the fundamental standards of literacy, numeracy and civic understanding, programs should focus exclusively on these. Some critics will argue that the school must go beyond these subjects to hold the interest of the pupils...but a fourteen year old who is semi-literate is an adolescent in need of intensive, focused attention.

--TheodoreSizer

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

At present opinion is divided about the subjects of education. People do not take the same view about what should be learned by the young, either with a view to human excellence or a view to the best possible life; nor is it clear whether education should be directed mainly to the intellect or to moral character...whether the proper studies to be pursued are those that are useful in life, or those which make for excellence, or those that advance the bounds of knowledge...men do not all honor the same excellence, and so naturally they differ about the proper training for it.

—Aristotle

It has been said that we have not had the three R's in America. We had the six R's: remedial readin', remedial 'ritin' and remedial 'rithmetic.

—Robert Hutchins

Preschool classrooms have become increasingly fraught spaces, with teachers cajoling their charges to finish their 'work' before they can go play. And yet, even as preschoolers are learning more pre-academic skills at earlier ages, I've heard many teachers say that they seem somehow—is it possible?—less inquisitive and less engaged than the kids of earlier generations. More children today seem to lack the language skills needed to retell a simple story or use basic connecting words and prepositions. They can't make a conceptual analogy between, say, the veins on a leaf and the veins in their own hands.

—Erika Christakis

New research sounds a particularly disquieting note....Although children who had attended preschool initially exhibited more 'school readiness' skills when they en-

tered kindergarten than did their non-preschool-attending peers, by the time they were in first grade their attitudes toward school were deteriorating. And by second grade they performed *worse* on tests measuring literacy, language, and math skills. The researchers told *New York* magazine that over-reliance on direct instruction and repetitive, poorly structured pedagogy were likely culprits; children who'd been subjected to the same insipid tasks year after year after year were understandably losing their enthusiasm for learning.

—Erika Christakis

In the past few decades we have seen a major transfer of child care and early learning from home to institution: Nearly three-quarters of American 4-year-olds are now in some kind of non-family care.

—Erika Christakis

When I survey parents of preschoolers....they fear that the old-fashioned pleasures of unhurried learning have no place in today's hyper-competitive world....The stress is palpable: Pick the 'wrong' preschool or ease up on the phonics drills at home, and your child might not go to college. She might not be employable. She might not even be allowed to start first grade!

—Erika Christakis

The real focus in the preschool years should be not just on vocabulary and reading, but on talking and listening. We forget how vital spontaneous, unstructured conversation is to young children's understanding. By talking with adults, and one another, they pick up information. They learn how things work. They solve puzzles that trouble them. Sometimes, to be fair, what children take away from a conversation is wrong. They might conclude, as my young son did, that pigs produce ham, just as chickens produce eggs and cows produce milk. But these understandings are worked over, refined, and adapted—as when a brutal older sibling explains a ham sandwich's grisly origins.

—Erika Christakis

The academic takeover of American early learning can be understood as a shift from what I would call an 'ideas-based curriculum' to a 'naming-and-labeling-based curriculum.' Not coincidentally, the latter can be delivered without substantially improving our teaching force. Inexperience or poorly supported teachers are directed to rely heavily on scripted lesson plans for a reason: We can point to a defined objective, and tell ourselves that at least kids are getting *something* this way.

—Erika Christakis

More important than the curriculum is the question of the methods of teaching and the spirit in which the teaching is given.

—Bertrand Russell

To narrow down our curriculum and focus to just what is ‘on the test’ can take away the inquiry, passion, and the joy of learning.

—Robert John Meehan

The more valid the test for a particular curriculum, in the sense of more perfect conformity to it, the less its usefulness in pointing toward inadequacies in, and illuminating possibilities and completion of, that curriculum.

—Michael Paul
Goldenberg

The value of a curriculum or any segment of it lies not in itself but in its service to the learner. What may be functional for one may not be for another; what may be functional at one time may not be for another; and what may be functional in one location may not be in another. Providing an effective program then becomes a matter of properly matching two variables, the curriculum and the learner.

--Harold Spears

The arithmetic of 1900 differed materially from the arithmetic we now include in the elementary curriculumTwo of its characteristics stand out prominently: (a) it was hard, and (b) it was little related to practical living....Teachers, relying pretty much upon what was in the textbook, showed pupils what to do and then relied upon abundant practice to produce mastery. Homework assignments were heavy, and many parents were called upon to revive, temporarily at least, skills that they had forgotten. The children who survived this demanding regimen, aided often by two one-hour periods in arithmetic a day, were capable of arithmetical feats far beyond the capabilities of eighth-graders today, whether or not they ever put them to effective use.

--William A. Brownell

For too long, history has been disparaged as a ‘soft’ subject by social scientists offering spurious certainty. We believe it is time for a new and rigorous ‘applied history’—an attempt to illuminate current challenges and choices by analyzing precedents and historical analogues. We not only want to see applied history incorporated into the Executive Office of the President, alongside economic expertise; we also want to see it developed as a discipline in its own right at American universities.

—Graham Allison and
Niall Ferguson

Most teachers have little control over school policy or curriculum or choice of texts or special placement of students, but most have a great deal of autonomy inside their classroom. To a degree shared by only a few other occupations, such as police work, public education rests precariously on the skill and virtue of the people at the bottom of the institutional pyramid.

--Tracy Kidder

Those people who fill the curriculum with thousands of courses on Shakespeare would have denied Shakespeare a job because he lacked a degree.

--Ishmael Reed

Teachers knew who would be able to speak for a living, who was going to be curling hair, and who was going to be changing a tire. Teachers would come by the house to tell your mama and daddy what they needed to do for you. My teacher would have me reading Shakespeare, while the boy next to me was learning how to fill out a job application. The kept it very real. That's not happening today.

--Samuel L. Jackson

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

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

A discipline was defined as a compartment of knowledge, and the way to teach the discipline, whether in elementary or secondary schools (or at university), was to get a certain segment of the compartment into the students' heads each year. This segment was presented in a textbook, usually written by university specialists in the discipline. Education was (and often still is) imparting knowledge of the disciplines.

The first consequence of this way of thinking may be observed in a brief conversation:

‘And what do you teach?’

‘I teach history.’

I have never heard anyone ask, ‘Whom do you teach?’ Nor have I heard any high school teacher say, ‘I teach people.’

—W. R. Wees

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

School improvement is most surely and thoroughly achieved when teachers engage in frequent, continuous and increasingly concrete talk about teaching practices... capable of distinguishing one practice and its virtue from another.

—Judith Warren

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

Curriculum, examinations, commencement, degrees are all part of the same system; they are all inherited from the Middle Ages, and in some form they go back to the twelfth century.

--Charles Homer Haskins

Casals says music fills him with the wonder of life and the ‘incredible marvel’ of being a human. Ives says it expands his mind and challenges him to be a true individual. Bernstein says it is enriching and ennobling. To me, that sounds like a good cause for making music and the arts an integral part of every child's education. Studying music and the arts elevates children’s education, expands students' horizons, and teaches them to appreciate the wonder of life.

—Richard Riley

There is no reason why every student needs to take however many credits in the same course of study as every other student. The root of curricular change will be the shift in middle schools to a role as foundational content providers and high schools as places for specialized learning.

—Shelley Blake-Pollock

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

--William Shakespeare

The things taught in schools and colleges are not an education, but the means of education.

--Ralph Waldo Emerson

There has been so much recent talk of progress in the areas of curriculum innovation and textbook revision that few people outside the field of teaching understand how bad most of our elementary school materials still are.

—Jonathan Kozol

For truth to tell, dancing in all its forms cannot be excluded from the curriculum of all noble education: dancing with the feet, with ideas, with words, and, need I add that one must also be able to dance with pen- that one must learn how to write

—Friedrich Nietzsche

A large-scale policy mandating a mono-cultural curriculum – focused on teaching to the job may very well create a society of trained workers; but it will fail at creating a learning society. If we want to maintain a position of being inventive and vibrant and robust, we need an inventive, vibrant and robust educational philosophy. Just as teaching to the test distorts the learning process in ways that are often directly in opposition to the desired outcomes of the test, a teaching policy aimed at jobs alone may very well end up destroying jobs, or at the very least compromising a truly innovative culture.

—Henry Doss

A syllabus is an outline of the books your professor has written and wants you to buy.

—*TL;DR Wikipedia*

School is a twelve-year jail sentence where bad habits are the only curriculum truly learned. I teach school and win awards doing it. I should know.

—John Taylor Gatto

Invading a country is easier than changing educational curriculum.

—Ghazi al Gosaibi

These days, many well-meaning school districts bring together teachers, coaches, curriculum supervisors, and a cast of thousands to determine what skills your child needs to be successful. Once these ‘standards’ have been established, pacing plans are then drawn up to make sure that each particular skill is taught at the same rate and in the same way to all children. This is, of course, absurd. It gets even worse when one considers the very real fact that nothing of value is learned permanently by a child in a day or two.

—Rafe Esquith

Every maker of video games knows something that the makers of curriculum don’t seem to understand. You’ll never see a video game being advertised as being easy. Kids who do not like school will tell you it’s not because it’s too hard. It’s because it’s--boring

—Seymour Papert

The solution which I am urging is to eradicate the fatal disconnection of subjects which kills the vitality of our modern curriculum. There is only one subject-matter for education, and that is *Life* in all its manifestations. Instead of this single unity, we offer children--Algebra, from which nothing follows; Geometry, from which nothing follows; Science, from which nothing follows; History, from which nothing follows; a Couple of Languages, never mastered; and lastly, most dreary of all, Literature, represented by plays of Shakespeare, with philological notes and short analyses of plot and character to be in substance committed to memory. Can such a list be said to represent Life, as it is known in the midst of living it? The best that can be said of it is, that it is a rapid table of contents which a deity might run over in his mind while he was thinking of creating a world, and has not yet determined how to put it together.

—Alfred North
Whitehead

It still amazes me that we insist on teaching algebra to all students when only about 20 percent will ever use it and fail to teach anything about parenting when the vast majority of our students will become parents.

—Nel Noddings

There is, it seems, more concern about whether children learn the mechanics of reading and writing than grow to love reading and writing; learn about democracy than have practice in democracy; hear about knowledge... rather than gain experience in personally constructing knowledge... see the world narrowly, simple and ordered, rather than broad complex and uncertain.

—Vitto Perrone

Standardization, the great ally of mediocrity, wins out over imagination.

—Thomas J. Sergiovanni

There is something about the Procrustean bed about schools; some children are left disabled by being hacked about to fit the curriculum; some are stretched to take up the available space, others less malleable are labeled as having special educational needs.

—Chris Bowring-Carr
and John
Burnham West

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

The real process of education should be the process of learning to think through the application of real problems.

—John Dewey

All the arts are brothers, each one throwing a light unto the others.

—Voltaire

Schools should be accountable- but accountable for what?... I would like to see schools accountable for developing students who have a love of learning—who are continually growing in wisdom and in their ability to function effectively (and happily) in the world.

—Judy Yero

Be careful what you give children, for sooner or later you are sure to get it back.
—Barbara Kingsolver

The curriculum is to be thought of in terms activity and experience rather than knowledge to be acquired and facts to be stored.

—*Haddow Report*
UK (1931)

Much of the material presented in schools strikes students as alien, if not pointless.
—Howard Gardner

(Because) it is the intellect which dominates schooling ... the specifically soul making subjects—literature, drama, music, the visual arts- are progressively ‘de-souled’ as the child progresses through school.

—Dr. Bernie Neville

Thinking precedes literacy and numeracy but nowhere in the curriculum is that recognized.

—John Mc Gavin

We should see schools as safe arenas for experimenting with life, for discovering our talents... for taking responsibility for tasks and others people, for learning how to learn... and for exploring our beliefs about life and society.

—Charles Handy

The whole process of education should be thus conceived as the process of learning to think through the solutions of real problems.

—John Dewey

More important than the curriculum is the question of the methods of teaching and the spirit in which the teaching is given.

—Bertrand Russell

In true education, anything that comes to our hand is as good as a book: the prank of a page-boy, the blunder of a servant, a bit of table talk—they are all part of the curriculum.

—Michel de Montaigne

Not to teach the whole curriculum is to give up on the whole man.

—Paul Goodman

It is one thing to take as a given that approximately 70 percent of an entering high school freshman class will not attend college, but to assign a particular child to a curriculum designed for that 70 percent closes off for that child the opportunity to attend college.

—James S. Coleman

Changing a college curriculum is like moving a graveyard—you never know how many friends the dead have until you try to move them!

—Calvin Coolidge

I have never understood the importance of having children memorize battle dates. It seems like such a waste of mental energy. Instead, we could teach them important subjects such as How the Mind Works, How to Handle Finances, How to Invest Money for Financial Security, How to be a Parent, How to Create Good Relationships, and How to Create and Maintain Self-Esteem and Self-Worth. Can you imagine what a whole generation of adults would be like if they had been taught these subjects in school along with their regular curriculum?

—Louise Hay

Just as we take for granted the need to acquire proficiency in the basic academic subjects, I am hopeful that a time will come when we can take it for granted that children will learn, as part of the curriculum, the indispensability of inner values: love, compassion, justice, and forgiveness.

—Dalai Lama

Give peace a chance, yes, but why not get serious and give it a place in the curriculum: peace courses in every school, every grade, every nation. Unless we teach our children peace, someone else will teach them violence.

—Colman McCarthy

Teachers need to integrate technology seamlessly into the curriculum instead of viewing it as an add-on, an afterthought, or an event.

—Heidi Hayes Jacobs

School systems should base their curriculum not on the idea of separate subjects, but on the much more fertile idea of disciplines... which makes possible a fluid and dynamic curriculum that is interdisciplinary.

—Ken Robinson

Do away with curriculum. Do away with segregation by age. And do away with the idea that there should be uniformity of all schools and of what people learn.

—Seymour Papert

Since there is no single set of abilities running throughout human nature, there is no single curriculum which all should undergo. Rather, the schools should teach everything that anyone is interested in learning.

—John Dewey

Slowly I began to realize that the bells and the confinement, the crazy sequences, the age-segregation, the lack of privacy, the constant surveillance, and all the rest of the national curriculum of schooling were designed exactly as if someone had set out to prevent children from learning how to think and act, to coax them into addiction and dependent behavior.

—John Taylor Gatto

To be clear, we [the Department of Education] want curriculum to be driven by the local level. We are by law prohibited from directing curriculum. We don't have a curriculum department.

—Arne Duncan

Let the questions be the curriculum.

—Socrates

Today I know that physical training should have as much place in the curriculum as mental training.

—Mahatma Gandhi

Fostering creativity in children is as important as any other part of the school curriculum because it feeds the soul. A daily dose of creativity helps children imagine a better world and then create it.

—Renee Fleming

The difficulty with coming up with a curriculum is mainly that faculty aren't trained to think in terms of general education. They're trained to think in terms of their own discipline, or their specialty.

—Louis Menand

In differentiated classrooms, teachers begin where students are, not the front of a curriculum guide.

—Carol Ann Tomlinson

The curriculum of the future will be what one might call the humanistic curriculum.

—John Goodlad

It is inappropriate (to allow parents) to design the curriculum.

—Rod Paige

But since there is but one aim for the entire state, it follows that education must be one and the same for all, and that the responsibility for it must be a public one, not the private affair which it now is, each man looking after his own children and teaching them privately whatever private curriculum he thinks they ought to study.

—Aristotle

If the curriculum we use to teach our children does not connect in positive ways to the culture young people bring to school, it is doomed to failure.

—Lisa Delpit

Educators, long disturbed by schoolchildren's lagging scores in math and reading, are realizing there is a different and more alarming deficiency: emotional literacy. And while laudable efforts are being made to raise academic standards, this new and troubling deficiency is not being addressed in the standard school curriculum. As one Brooklyn teacher put it, the present emphasis in schools suggests that 'we care more about how well schoolchildren can read and write than whether they'll be alive next week.'

—Daniel Goleman

I imagine a school system that recognizes learning is natural, that a love of learning is normal, and that real learning is passionate learning. A school curriculum that values questions above answers...creativity above fact regurgitation...individuality above conformity.. and excellence above standardized performance..... And we must reject all notions of 'reform' that serve up more of the same: more testing, more 'standards,' more uniformity, more conformity, more bureaucracy.

—Tom Peters

The content of the curriculum should never exclude the realities of the very students who must intellectually wrestle with it. When students study all worlds except their own, they are miseducated.

—Johnnetta B. Cole

In order to arrive to a more realistic view of society, it must be recognized that there are individual differences that cannot be eradicated by the most rigid curriculum, and that various individuals will choose different educational curricula if allowed to do so.

—Carl Eckart

We must never return to the Julie Andrews curriculum where we teach ‘a few of my favorite things!’

—Andy Hargreaves

Curriculum should help children make deeper and fuller understanding of their own experience

—Lilian Katz

There are obvious places in which government can narrow the chasm between haves and have-nots. One is the public schools, which have been seen as the great leveler, the authentic melting pot. That, today, is nonsense. In his scathing study of the nation’s public school system entitled ‘Savage Inequalities,’ Jonathan Kozol made manifest the truth: that we have a system that discriminates against the poor in everything from class size to curriculum.

—Anna Quindlen

Curriculum leaders understand that curriculum alignment consists of curriculum, instruction, and assessment. Without a method of measurement, then it is highly unlikely that the curriculum will be implemented across classrooms.

—Steven Weber

Curriculum development is the essential function of school leadership. Whether the role is carried out by a principal, an assistant principal for curriculum, a team leader, a department head, or by leading classroom teachers, the curriculum defines all other roles in a school.

—Jon Wiles

Poorly aligned curriculum results in our underestimating the effect of instruction on learning. Simply stated, teachers may be ‘teaching up a storm,’ but if what they are teaching is neither aligned with the state standards or the state assessments, then their teaching is in vain.

—Lorin W. Anderson

Curriculum is always a means to somebody’s end.....No selection of curriculum content can be considered politically neutral.

— Fenwick W. English

The job is not to hope that optimal learning will occur, based on our curriculum and initial teaching. The job is to ensure that learning occurs, and when it doesn’t, to intervene in altering the syllabus and instruction decisively, quickly, and often.

—Grant Wiggins and Jay
McTighe

One of the tasks of curriculum leadership is to use the right methods to bring the written, the taught, the supported, and the tested curriculums into closer alignment, so that the learned curriculum is maximized.

— Allan Glatthorn

In an interdisciplinary approach the subjects are interconnected beyond a theme or issue and the connections are made explicit to the pupils.

—Grady Venville

Integrated approaches to teaching and learning are not new. A century ago, John Dewey and his contemporaries suggested that by applying ideas from one discipline to another, students would come to appreciate the interconnection of ideas and the relevance of their schooling.

—John Wallace

Almost without exception, students in innovative interdisciplinary programs do as well as, and often better than, students in so-called conventional programs. In other words, educators who carefully implement any of the various types of interdisciplinary approaches can be reasonably assured that there will be no appreciable loss in student learning, except, perhaps, for the temporary ‘implementation dip’ that occurs whenever people try anything new.

—Gordon F. Vars

The single most important thing we can do to help students succeed after high school is to provide a challenging high school curriculum. Why? Because the biggest contributor to success in college isn’t a student’s SAT or ACT score, nor is it GPA or rank in class. Rather, the single best predictor of college success is the quality and intensity of a student’s high school curriculum.

—Patte Barth and
Kati Haycock

(Generative curriculum) starts and develops with children’s interests, interests that remain at the center of the inquiry. As children and teachers pursue areas of interest, new curriculum is created collaboratively, learning becomes dynamic, and one avenue of interest leads to another. As themes and topics are initiated and pursued throughout the year, connections and relationships are made. Working with curriculum this way allows for authentic learning and provides teachers with opportunities to be learners, too.

—David C. Virtue

The knowledge and skills that today's young people need to succeed in the 21st century far exceed those that were enough for their counterparts a mere generation ago. The only prediction we can confidently make about future jobs is that they will change--and change yet again. Even those youngsters who go directly to work after high school will likely find themselves needing more training and education at some point in their working lives. So our eyes--and our energies--must be focused on ensuring that they leave high school with the foundation they need to access that additional learning, as well as to participate fully in family and civic life. A common college-prep curriculum is the shortest path toward meeting that goal.

—Patte Barth and
Kati Haycock

Though top-performing countries tend to win acclaim for their math and science performance, the key to that success may lie in their commitment to a broad curriculum, with healthy doses of the liberal arts and sciences,

—Sean Cavanagh

Full coverage of each curricular objective has often supplanted teachers' desire to teach creatively and engagingly.

—Lisa Schnuit

The curriculum is created with early adolescents using questions and concerns about themselves and the world that they themselves identify, along with relevant themes and activities, through cooperative planning with their teachers. The reasoning behind this approach is simply this: authentic integration of educational experiences is most likely when the curriculum emerges from what young people themselves see as significant issues or problems to explore.

--James A. Beane

It is change, continuing change, inevitable change, that is the dominion factor in society today. No sensible decision can be made any longer without taking into account not only the world as it is, but the world as it will be.

--Isaac Asimov

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

Time is one of the most precious resources available to us as principals. What teachers see us spending time on is what they'll perceive as important.

--Rick DuFour

Basic assumptions that underlie the curriculum development and monitoring process are:

- Effective schools have focus
- The focus of schools should be student outcomes
- The principal is the person who has primary responsibility for monitoring outcomes
- The appropriate level for monitoring outcomes is the individual classroom
- Leaders communicate the importance of an areas by paying attention to it.

--Rick DuFour

Keys to the successful implementation of a curriculum development process include:

- You must believe in our ability to succeed.
- You must know what it is you are trying to accomplish.
- You must recognize the importance of persistence.
- You must communicate the importance of this effort by the time and attention you pay to it.

--Rick DuFour

Passive citizenship is a contradiction in terms. We need to rethink the design of citizenship courses. Students should look at such issues as defining active patriotism and examining viable dissent. The U.S. Constitution is a remarkable document that keeps growing, responding to each chapter in our national story. Students should study it in depth as a commanding political and literary work.

Why not have a course in high school called Becoming an Active Voter? We have an extraordinarily low vote turnout in the United States. Kids say, 'What difference does it make? Adults aren't voting.' We create that passivity by teaching citizenship and government at kids as opposed to engaging them in issues-based, activity-based, voter-oriented, and yes, community service-oriented curriculum. Students should have opportunities to become politically active in their communities throughout middle and high school.

--Heidi Hayes
Jacobs

Since teachers orchestrate the classroom experience, they must have a significant role in developing curriculum as well as in implementing it.

--William Doll

Education starts with knowledge of yourself.

--Jerome Avery

An effective curriculum ingrates content, processes, and habits of mind taught in meaningful contexts that are relevant and interesting to students.

--Arthur Costa, Robert
Marzano, and
David Perkins

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 system.

--Samuel G. Christie

Since the introduction of microcomputers into elementary and secondary schools in the early 1980s, stories have blossomed of children who hate school discovering the joy of learning through computing or who perform precocious intellectual feats at the keyboard.

--Pamela McCorduck and
Avery Russell

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

--Marc S. Tucker

We have created an educational structure that is convenient for government, convenient for teachers, and convenient for society—but seemingly highly unsuitable for many young people.

--Bernard Fryshman

Using the calendar as an organizer, teachers describe or ‘map’ a year’s curriculum in monthly or grading period ‘chunks’ as it is actually taught. The resulting document is a chart or map of the content, skills, and assessments that describe learning in a classroom. Posting composites of maps in a school or district office affords both a vertical (grade-to-grade, K-12) and a horizontal (all courses within a grade) view of curriculum, instruction, and assessment.

--Heidi Hayes
Jacobs

As teaching practices change in...more open, child-oriented directions the gap between the 'lessons' of instruction and the content of traditional tests becomes wider.

--Edward Chittenden

You cannot try to fix the quality of education without asking the basic question: 'What do you mean by an educated youngster?' Just to get a kid into a math course is good. But it's better if we can define what an effective math course is.

--Bill Honig

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

The best schools are those in which all children—not just a few—are believed to be capable, where all are offered rich learning opportunities, held to rigorous intellectual standards, and expected to succeed.

--Jeannie Oakes
and Martin Lipton

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

Curriculum should provoke thought, not just transmit isolated facts.

--Grant Wiggins

I believe that our conception of curriculum is fundamentally wrong. Instead of choosing curriculum content for its ability to foster thoughtful students who are able to make connections and solve problems, educators seem to base their decisions on the question: 'Wouldn't it be nice if people knew these things?'

--Grant Wiggins

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

Curriculum is not the only element of schooling that affects what children learn, but it is a major element that can be directly managed to improve gradually pupil achievement.

--Fenwick English

Education really ought to help us understand the world we live in. This includes flora, fauna, cultures, governments, religions, money, advertising, buildings, cities, and especially people. Then it should help us cope with the world. And in the process, it would be nice if it helped us to become good, kind, empathic people.

--Tom Magliozzi

I don't think when we grow up anybody will come up on the street and say, 'Excuse me, do you know who Constantine was?' We're learning about Constantine and his son, and his son's son, and his son's cousin. They didn't do anything in history, but we learned about it.

--Middle School Student

A curriculum is one method to ensure that the objectives set by legitimate educational authorities are realized. No curriculum would be required for schools if any result or outcome were as good as any other, or if the state had not decided that some results are clearly more important than others. In short, a curriculum is a management tool.

A curriculum draws the boundary of what is meant by schooling. It defines the territory in one of two ways. One way defines curriculum as the means to attain specified objectives. Another way defines curriculum as all teaching and learning that may go on in school, planned or unplanned.

--Fenwick English

A curriculum is an amalgam of decisions that establishes a pattern of response to recurring circumstances within schools. A curriculum comes into being when someone decides what will be learned, how much time will be spent, and what order will be followed. Even a decision to ignore these matters is a decision, but then decision is given over to students by default.

A classroom curriculum can be as simple as constructing a required reading list (what will be learned), determining the time to be spent on each book (the emphasis), and the order in which the books will be read (the sequence). Such a reading list represents one kind of curriculum.

--Fenwick English

To manage a curriculum well means effecting a planned and systematic congruence or 'match' between (1) what the teacher does teach, (2) what the teacher should teach, and (3) what students actually learn.

--Fenwick English

It might well be said that one's education is not complete without a study of comparative religion or the history of religion and its relationship to the advancement of civilization. It certainly may be said that the Bible is worthy of study for its literary and historic qualities.

--Tom C. Clark

Standardized tests should not define the curriculum. They should be used to assess whether students have accomplished the objectives of the curriculum. It is undeniable, however, that tests have become the curriculum in some instances. That is, instead of an elected or appointed board of education defining a curriculum with locally adopted objectives, a test publisher elected by no one defines the curriculum and the objectives.

In short, a school district should know how well a particular test matches its curriculum. The curriculum should state precisely what students are expected to learn, and the testing program should be aligned to the objectives. When test data are obtained, then the district has the capability to make adjustments among all three elements (objectives, teaching, and testing) to improve pupil achievement.

--Fenwick English

The unknowable future is not a sound basis on which to plan curriculum.

--Elliot W. Eisner

Use of the internet opens a world of research and information to students that they would not experience otherwise (and can provide) students with skills such as problem solving and abstract thinking that are requisite for the 21st-century work force.

--Dianne Griffin

Curriculum management is a kind of hybrid field, something like biochemistry, in which the models, modes, and procedures of two fields are merged into a new one. One result of this hybrid origin is that curriculum can be viewed as the work plan for a school. As such, it ought to be purposive, connected to goals and policies, and translated into what people ought to do in schools; i.e., real work.

--Fenwick English

Whatever the environment, curriculum should enable a school to be more effective. The environmental constraints and the patterns of action and reaction in a school are sufficiently varied to require that the development of its curriculum reflect contextual forces rather than some generalized model or set of guidelines. Curriculum, to be functional, must be relational and transactional. It must be contextually grounded.

--Fenwick English

A sophisticated curriculum must be placed in equally sophisticated hands to be delivered as designed. Teachers are the primary agents for curriculum delivery. It is necessary to assess the existing range of skills among the teaching staff to know if the curriculum can be delivered appropriately.

--Fenwick English

In a world where the amount of available information is estimated to double every five years, one of the most significant and controversial questions facing educators is the question: 'What should all students learn?'

--Arthur T. Clark

Learning should not only take us somewhere; it should allow us later to go further more easily.

--Jerome S. Bruner

Although the length of the school year in most U.S. school districts is 180 days,... the amount of time actually devoted to instruction equals about 115 days, and students are actively engaged in learning for the equivalent of 81 days. In other words, we lose 55% of the time we allocate for learning in our elementary and secondary schools.

--*Phi Delta Kappan*

A popular Government, without popular information, or the means of acquiring it, is but a Prologue to a Farce or a Tragedy; or, perhaps both. Knowledge will forever

govern ignorance: And a people who mean to be their own Governors, must arm themselves with the power which knowledge gives.

--James Madison (1822)

American public schools need a national curriculum to become competitive with school systems in other countries and to reverse plummeting public confidence in education.

--Albert Shanker

Despite the call for high standards for all students, powerful curricular distinctions still exist and serve to sort students. These distinctions are expressed in such designations as AP, regular, and basic courses.

--Rona Wilensky

A national survey shows that most school districts prefer homegrown curriculums developed by committees of teachers and administrators. Local control, however, requires long-term teacher participation that budget-watching school boards may be unwilling to pay for.

--David S. Martin, Philip
S. Saif, and Linda
Thiel

The major obstacle on the way to an educational society was well defined by a black friend of mine in Chicago, who told me that our imagination was 'all schooled up.' We permit the State to ascertain universal educational deficiencies of its citizens and establish one specialized agency to treat them. We thus share in the delusion that we can distinguish between what is necessary education for others and what is not—just as former generations established laws which defined what was sacred and what was profane.

—Ivan Illich

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

The Marks of a Good Curriculum: A Checklist for Appraising a School's Program

CRITERIA

- I. A good curriculum is systematically planned and evaluated
 - A. A definite organization is responsible for coordinating planning and evaluation
 - B. Steps in planning and evaluation are logically defined and taken
 - C. Ways of working utilize the contributions of all concerned.

- II. A good curriculum reflects adequately the aims of the school
 - A. The faculty has defined comprehensive educational aims.
 - B. The scope of the curriculum includes areas related to all stated aims.
 - C. Each curriculum opportunity is planned with reference to one or more aims.
 - D. In planning curriculum opportunities from year to year and in each area, teachers consider the total scope of aims.
- III. A good curriculum maintains balance among all aims of the school
 - A. The curriculum gives attention to each aim commensurate
 - B. The total plan of curriculum opportunities in basic areas, school activities, and special interests reflects careful planning with respect to all aims.
 - C. Guidance of each individual helps provide him a program which is well balanced in terms of his needs and capacities.
 - B. The school organization, schedule, and facilities help in giving appropriate attention to each aim.
 - D. Classroom activities and schedules are arranged so as to provide a balanced program of varied learning activities,.
- IV. A good curriculum promotes continuity of experience
 - A. Provisions are made for the smooth transition and continuing achievement of pupils from one classroom, grade, or school to another.
 - B. Curriculum plans in areas which extend over several years are developed vertically
 - C. Classroom practices give attention to the maturity and learning problems of each pupil.
 - D. Cooperative planning and teaching provide for exchange of information about pupils' learning experiences.
- V. A good curriculum arranges learning opportunities flexibly for adaption to particular situations and individuals
 - A. Curriculum guides encourage teachers to make their own plans for specific learning situations.
 - B. Cooperative teaching and planning utilize many opportunities as they arise to share learning resources and special talents.
 - C. Time allotments and schedules are modified as need justifies.
 - D. In accordance with their maturities, pupils participate in the planning of learning experiences.

E. The selection of learning experiences reflects careful preplanning by teachers and equally careful attention to the demands of the learning situation.

- VI. A good curriculum utilizes the most effective learning experiences and resources available
- A. Learning experiences are developed so that pupils see purpose, meanings and significance in each activity.
 - B. Needed, available resources are utilized at the time they are relevant and helpful.
 - C. Use of the right learning resource for each pupil is encouraged.
 - D. Teachers discriminate wisely between activities which pupils carry on independently and those in which teacher-pupil interaction is desirable.

- VII. A good curriculum makes maximum provision for the development of each learner
- A. The program provides a wide range of opportunities for individuals of varying abilities, needs, and interests.
 - B. Extensive arrangements are made for the educational diagnosis of individual learners.
 - C. Self-directed, independent study is encouraged wherever possible and advisable.
 - D. Self-motivation and self-evaluation are stimulated and emphasized throughout the learning opportunities of the school.
 - E. The curriculum promotes individual development rather than conformity to some hypothetical standard.
 - F. The school attempts to follow up its former students both as a service to them and for evaluative data.

—Galen Saylor and
William Alexander

Four questions must be answered in developing any curriculum plan of instruction:

1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that will likely attain these purposes?
3. How can these educational experiences be effectively organized?
4. How can we determine whether the purposes are being attained?

—Ralph Tyler

ASSUMPTIONS OF CURRICULUM PLANNING:

1. Quality in educational program has priority in educational goals.
2. The curriculum itself must be dynamic and ever changing as new developments and needs in our society arise.
3. The process of curriculum planning must be continuous, not limited and must be dynamic.
4. No master curriculum plans will serve all schools.
5. Many individuals participate in curriculum planning.
6. Procedures of curriculum planning vary from system to system, from school to school, and from classroom to classroom, but they must be logical, consistent and identifiable in each situation.

—Galen Saylor and
William Alexander

FIVE STEPS SEQUENCE FOR ACCOMPLISHING CURRICULUM CHANGE:

1. Production by teachers of pilot teaching-learning units representative of the grade level or subject area.
 - a. Diagnosis of needs.
 - b. Formulation of objectives.
 - c. Selection of content.
 - d. Organization of content.
 - e. Selection of learning experiences.
 - f. Organization of learning experiences.
 - g. Determination of what to evaluate and the ways and means of doing it.
 - h. Checking for balance and sequence.
2. Testing experimental units.
3. Revising and consolidating.
4. Developing a framework.
5. Installing and disseminating new units.

—Hilda Taba

THE OLIVA MODEL:

According to Oliva, a model curriculum should be simple, comprehensive and systematic. The Oliva Curriculum development model is composed of 12 components, namely:

- a. Component 1: Philosophical formulation, target, mission and vision of the institution
- b. Component 2: Analysis of the needs of the community where the school is located
- c. Components 3 and 4: General purpose and special purpose curriculum
- d. Component 5: Organizing the design and implement curriculum
- e. Component 6 and 7: Describe the curriculum in the form of the formulation of general objectives and specific learning
- f. Component 8: Define the learning strategy
- g. Component 9: Preliminary studies on possible strategies or assessment techniques to be used
- h. Component 10: Implement the learning strategy
- i. Components 11 and 12: Evaluation of learning and curriculum evaluation

To make the Oliva Model more simplistic, it can be set forth in 17 specific steps:

1. Specify the needs of the students in general.
2. Specify the needs of society.
3. Write a statement of philosophy and aims of education.
4. Specify the needs of students in your school.
5. Specify the needs of the particular community.
6. Specify the needs of the subject matter.
7. Specify the curriculum goals of your school.
8. Specify the curriculum objectives of your school.
9. Organize and implement the curriculum.
10. Specify instructional goals.
11. Specify instructional objectives.
12. Specify instructional strategies.
13. Begin selection of evaluation techniques.
14. Implement instructional strategies.
15. Make final selection of evaluation techniques.
16. Evaluate instruction and modify instructional components.
17. Evaluate the curriculum and modify curricular components.

—Peter F. Oliva

A worthy curriculum is more than a list of subjects or topics covered in a school and it is certainly more than a set of objectives for any particular course. It encompasses a number of interdependent factors including what students learn and how, what teaching strategies are most effective, and how the structure of the school supports both student achievement and teacher effectiveness.

—Bethany Roberts

The archaic structure of the 40-minute period in our high schools emerged from the latter part of the 1800s. This 19th century idea was not predicated on matching form with function; rather it was based on a factory model of equal exposure for efficiency. Curriculum had to be pushed into that form. No matter what the learner needed, a teacher in the 1890s could only do ‘40-minute things.’

—Heidi Hayes Jacobs

A promising and sensible strategy employed by high school teachers is the design of a set of essential questions that serve to frame and focus the curriculum. Coverage is a ‘no win’ type of teaching style. Wiggins (1989) wrote a provocative article entitled ‘The Futility of Trying to Teach Everything of Importance’ suggesting the fruitlessness of coverage. Most state syllabi are vastly overwritten, creating problems for high school teachers who feel rushed and pressured to ‘present’ all the material in the curriculum. It is not surprising that six months after we cover material, students are hard pressed to recall very much. The alternative is to reshape the curriculum, around a set of concepts that are the most critical for learners. This allows students to focus their work and projects on essential concepts, factual knowledge, and skills.

—Heidi Hayes Jacobs

Every state is different. The United States does not have a national curriculum, nor will it ever, as long as funding comes through states and localities. It’s as if there were 50 countries with distinctive approaches to standards.

—Heidi Hayes Jacobs

We have chosen what is common, established, almost proverbial; what has become indisputably ‘classic,’ what, in brief, *every child in the land ought to know*, because it is good, and *because other people know it*. The educational worth of such materials calls for no defense. In an age when the *need of unifying our people* is keenly felt, the value of a *common stock of knowledge*, a common set of ideals, is obvious.

—A. H. Thorndike and
F. T. Baker (1900)

Students have a right to know the intended learning outcomes and receive feedback regarding their progress during the learning process. Assessments have traditionally been secretive and summative, preventing students from having an opportunity to improve their performance.

—Grant Wiggins

Standardized tests, for the most part, require students to recall or recognize fragmented and isolated bits of information. They rarely ask students to apply that information, and they almost never require students to exhibit proficiencies in the ‘higher forms’ of cognition, such as complex reasoning and self-directedness.

—Robert Marzano &
Arthur Costa

Changes in society and the new realities of the world have implications for the ways educators think about curriculum and assessment and about teaching as a constructive process. In order to prepare students for a lifetime of learning, educators need to rethink curriculum. Academic disciplines and classroom subjects should be seen as areas in which to introduce students to the skills of abstraction, systems thinking, experimental inquiry, and collaboration. Assessments need to reflect a process orientation rather than a product measurement. The educator’s role is teaching students, not teaching subjects.

—*Canter & Associates*

The nature and values of a civilization can be understood to some extent by examining what it chooses to teach its children—by its curriculum. The school curriculum reflects what we as citizens value. By comparing traditional and contemporary views of curriculum, we can discern a transformation of curriculum characteristics.

—*Canter & Associates*

Beware of:

- ...curriculum divorced from instruction or assessment.
- ...integration that is oblivious to disciplinary knowledge.
- ...curriculum planning that begins with textbooks.
- ...those who are convinced that business as usual will suffice for the
21st century.

—David Harris

The continuing challenge is to design curricula that simultaneously take into account solid subject matter, the needs of the learner, and society’s problems.

—Gordon F.Vans

We can improve. We can keep kids in school longer and achieve a better result. We cannot fail in education. If we fail, we fail our kids and we fail our future.

—Jaime Escalante

The administrator may promote or prevent innovation. S/He is powerful, not because s/he has a monopoly on imagination, creativity, or interest in change—the opposite is common—but simply because s/he has the authority to precipitate a decision.

—Henry Brickell

CURRICULUM FOR SOCIAL RECONSTRUCTION

Social reconstructionists see schooling as an agency of social change, and they demand that education be relevant both to the student's interest and to society's needs. Curriculum is conceived to be an active force having direct impact on the whole fabric of its human and social context. Social reform and responsibility to the future of society are primary.

The social view of schooling examines education and curriculum in terms of their relation to the social issues of the day. An approach in which social values, and often political positions, are clearly stated, social reconstructionism demands that schools recognize and respond to their role as a bridge between what is and what might be, between the real and the ideal, it is the traditional view of schooling as the bootstrap by which society can change itself.

The social reconstructionist foresees enormous changes in society and asks that curriculum provide the tools for individual survival in an unstable and changing world. The extreme reconstructionist view demands that individuals be better equipped to deal with changes. While all sides of the social reconstruction orientation view curriculum as the means by which students learn to deal with social issues, one group tends to be more conservative, asking for survival tools, and the other group is more aggressively leadership conscious.

The social reconstructionist orientation to education is hardly new. The refrain runs through much of the history of education reform, and it is a characteristic of Western society that schools, more than any other institution, are called upon to serve as an agent for social change.

Some of the names associated with social reconstructionism are Ivan Illich, Michael Scriven, Paulo Freire, and Alvin Toffler.

—Elliot Eisner and
Elizabeth Vallance

CURRICULUM FOR SELF-ACTUALIZATION

This orientation to education is strongly and deliberately value saturated. Schooling is seen as a means of personal fulfillment, and a context in which individuals discover and develop their unique identities. The function of the curriculum is to provide personally satisfying experiences for each individual learner. This approach is child cen-

tered, autonomy and growth oriented, and education is seen as an enabling process that would provide the means to personal liberation and development.

This approach focuses sharply on content. Unlike the cognitive process or curriculum technology approaches, the concern is very much for what is taught in school, it conceptualizes education as a liberating force, a means of helping the individual discover things for himself or herself. Schooling is seen as a vital and potentially enriching experience in its own right, and content as present experience is a major focus of concern.

Unlike the more strictly process-oriented approaches, the self-actualizers assign to education a much grander task. They demand that schooling, through the curriculum, enter fully into the child's life. They assume that it can do so, their criticism being that it has always done so, but without acknowledging the responsibilities involved. They see education as a necessarily pervasive influence that has been handled inadequately and very stultifyingly. They demand that the curriculum become better orchestrated to fulfill its potential as a liberating process by providing integrated experience. As a stage in the life process, education would provide both content and tools for further self-discovery.

The self-actualizers share a passionate orientation to education. Their language is interwoven with the language of humanism, of existentialism, and of existential psychology. They make reference to 'peak experiences' and 'the whole child,' 'creativity' and 'affect.'

Some names commonly associated with the self-actualization movement in education are Abraham Maslow, Carl Rogers and George Leonard.

—Elliot Eisner and
Elizabeth Vallance

CURRICULUM AS THE DEVELOPMENT OF COGNITIVE PROCESSES

The cognitive process orientation to curriculum seeks to develop a repertoire of cognitive skills that are applicable to a wide range of intellectual problems. In this view, subject matter, as typically defined, is considered instrumental to the development of intellectual abilities that can be used in areas other than those in which the processes were originally refined. For example, content in history or in biology is considered less important than the development of the student's ability to infer, to speculate, to deduce, or to analyze. These abilities, it is argued, will endure long after the particular content or knowledge is forgotten or rendered obsolete by new knowledge.

This approach to curriculum is primarily concerned with the refinement of intellectual operations. It refers only rarely to curriculum content, focusing instead on the how rather than the what of education. Aiming to develop a sort of technology of the mind, it sees the central problem of curriculum as that of sharpening the intellectual processes and developing a set of cognitive skills that can be applied to learning virtually anything.

This approach is process oriented in two senses: it identifies the goals of schooling as providing a repertoire of essentially content-independent cognitive skills applicable to a variety of situations, and it is concerned with understanding the processes by which learning occurs in the classroom.

The cognitive processes approach does not deal with specific content. There is the belief that present-day education places too much emphasis on the learner's memorization of information. Those supporting this approach claim that the effect of the modern information explosion has been to outmode any type of education conceived on the basis of information needed to effectively master a single subject.

This orientation to curriculum focuses on the child and the learning processes, rather than on the broader social context, it aims to provide the student with a sort of intellectual autonomy that will enable him to make his own selections and interpretations of the situations encountered beyond the context of schooling.

Some names associated with this approach to learning are Maria Montessori, Jean Piaget, Hilda Taba and Benjamin Bloom.

—Elliot Eisner and
Elizabeth Vallance

CURRICULUM AS TECHNOLOGY

The technological orientation to curriculum is concerned with the development of means to achieve prespecified ends. Those working from this orientation tend to view schooling as a complex system that can be analyzed into its constituent components. The problem for the educator or educational technologist is to bring the system under control so that the goals it seeks to attain can be achieved. This approach to schooling focuses on process. It is concerned with the how rather than the what of education.

The function of curriculum is essentially one of finding efficient means to a set of predefined, nonproblematic ends. As a process approach, curriculum technology differs from cognitive processes in its focus on attention. It is concerned not with the processes of knowing or learning, but with the technology by which knowledge is communicated and learning is facilitated. Making little or no reference to content, it is concerned with developing a technology of instruction. The focus is less on the learner or even on his relationship to the material than on the more practical problem of efficiently packaging and presenting the material to him. A step removed both from the individuality of the learner and from the content which defines the curricular experience, the technologists claim to be developing a value-free system.

The curriculum technology approach speaks the language of production. Curriculum technologists see curriculum as an input to supply and demand system. Their vocabulary is one of input, output, entry behavior, stimulus and reinforcement, and systems to 'produce' learning.

The curriculum-technology approach rests on certain stable assumptions about the nature of learning: namely that learning does occur in certain systematic and predictable ways, and that it can be made more efficient if only a powerful method for

controlling it can be perfected. The learner is seen neither as problematic nor as a particularly dynamic element in the system. The real task of the educator arises in organizing the materials sometime before the learner even enters the classroom. Some names commonly associated with this approach to learning are B. F. Skinner and Madeline Hunter.

—Elliot Eisner and
Elizabeth Vallance

CURRICULUM AS ACADEMIC RATIONALISM

The major goal of academic rationalists as far as curriculum is concerned is to enable students to use and appreciate the ideas and works that constitute the various intellectual and artistic disciplines. Academic rationalists argue that ideas within the various disciplines have a distinctive structure and a distinctive set of contributions to make to the education of man. Indeed, acquisition of these structures is largely what education is about.

Academic rationalism is the most tradition-bound of the five orientations to the curriculum, and it also has the longest history. Those embracing this orientation tend to hold that, since schools cannot teach everything or even everything deemed worth knowing, their legitimate function is to cultivate the child's intellect by providing him with opportunities to acquire the most powerful products of man's intelligence. These products are found, for the most part, in the established disciplines.

To become educated means to be able to read and understand those works that the great disciplines have produced, a heritage that is at least as old as the beginnings of Greek civilization. The school's responsibility is to enable the young to share the intellectual fruits of those who have gone before, inducing not only the concepts, generalizations, and methods of the academic disciplines but also those works of art that have withstood the test of time.

To construct a curriculum that includes 'practical' learning such as driver training, homemaking, and vocational education dilutes the quality of education and robs students of the opportunity to study those subjects that reflect man's enduring quest for meaning. The wise schoolmaster knows that not all subject matters are created equal, and he selects the content of his educational program with this principle in mind.

Academic rationalism is alive and well. Among its major proponents are Mortimer Adler and Bill Honig.

—Elliot Eisner and
Elizabeth Vallance

Constructivism is a theory of learning based on the principle that learners construct meaning from what they experience; thus, learning is an active, meaning-making process. Although constructivism seems to have made its strongest impact on science and mathematics curricula, leaders in other fields are attempting to embody in curriculum units the following principles:

- Units should be problem-focused, requiring the student to solve open-ended contextualized problems.
- Units should enable the students to have access to research and other knowledge in solving problems (generative knowledge).
- Learning strategies (such as the use of matrices and web diagrams) should be taught in the context of solving problems.
- The teacher should provide the necessary scaffolding or structure throughout units.
- Because learning is a social process, teachers should ensure that students spend at least part of their time in group formats, such as cooperative learning.
- Units should conclude by requiring the student to demonstrate learning in some authentic manner.

—Allan A. Glatthorn,
Judy F. Carr and
Douglas E. Harris

Principles to Guide Course Planning

- Offer a balanced core of learning in each course.
- Adopt the belief that in-depth study of a limited number of important topics will have a more lasting effect than a course that tries to cover too many disconnected bits and pieces of information.
- Design course outcomes to focus on results, with multiple indicators (assessments) of performance.
- Design authentic assessments that will encourage originality, insightfulness, and problem-solving, along with master of important information.
- Design courses to encourage active involvement.
- Get students ‘doing’ early in the course rather than studying all the principles and basics prior to performing.

—Gordon Cawelti

Outcomes-based education is a student-centered, results oriented design premised on the belief that all individuals can learn. The strategy of OBE implies the following.

- What students are to learn is clearly identified
- Each student’s progress is based on demonstrated achievement

- Each student's learning needs are addressed through multiple instructional strategies and assessment tools
- Each student is provided time and assistance to realize his/her potential.

—Mark A. Baron and
Floyd Boschee

BELIEFS AND FEATURES OF OUTCOME-BASED LEARNING (OBL)

1. All students can learn and succeed, but not on the same day in the same way.
2. Success breeds success.
3. Schools control the conditions of success.
4. It emphasizes authentic, achievable and assessable learning outcomes.
5. It is primarily concerned with what students' culminating capabilities at graduation time. It centres curriculum and assessment design around higher order exit outcomes.
6. It is accountable to the stakeholders, the learners, the teachers, the employers and the public.
7. It leads to the change of schooling, including the curriculum, instruction and assessment.

—William D. Spady

OPERATING PRINCIPLES OF OBL

1. Clarity of focus, meaning that all activities (teaching, assessment, etc) are geared towards what we want students to demonstrate;
2. Expanded opportunity, meaning expanding the ways and numbers of times kids get a chance to learn and demonstrate a particular outcome;
3. High expectations, meaning getting rid of the bell-curve and all students should achieve at the highest level;

4. Design down, meaning designing the curriculum from the point at which you want students to end up.

—William D. Spady

The central theory [of curriculum] is simple. Human life, however varied, consists in the performance of specific activities. Education that prepares for life is one that prepares definitely and adequately for these specific activities. However numerous and diverse they may be for any social class they can be discovered. This requires only that one go out into the world of affairs and discover the particulars of which their affairs consist. These will show the abilities, attitudes, habits, appreciations and forms of knowledge that men need. These will be the objectives of the curriculum. They will be numerous, definite and particularized. The curriculum will then be that series of experiences which children and youth must have by way of obtaining those objectives.

—Franklin Bobbitt
(1918)

Since the real purpose of education is not to have the instructor perform certain activities but to bring about significant changes in the students' pattern of behaviour, it becomes important to recognize that any statements of objectives of the school should be a statement of changes to take place in the students.

—Ralph Tyler (1949)

I believe there is a tendency, recurrent enough to suggest that it may be endemic in the approach, for academics in education to use the objectives model as a stick with which to beat teachers. 'What are your objectives?' is more often asked in a tone of challenge than one of interested and helpful inquiry. The demand for objectives is a demand for justification rather than a description of ends...It is not about curriculum design, but rather an expression of irritation in the problems of accountability in education.

—Lawrence Stenhouse

It can be criticized on nutritional or gastronomic grounds – does it nourish the students and does it taste good? – and it can be criticized on the grounds of practicality – we can't get hold of six dozen larks' tongues and the grocer can't find any ground unicorn horn! A curriculum, like the recipe for a dish, is first imagined as a possibility, then the subject of experiment. The recipe offered publicly is in a sense a report on the experiment. Similarly, a curriculum should be grounded in practice. It is an attempt to describe the work observed in classrooms that it is adequately communicated to teachers and others. Finally, within limits, a recipe can varied according to taste. So can a curriculum.

—Lawrence Stenhouse

As a minimum, a curriculum should provide a basis for planning a course, studying it empirically and considering the grounds of its justification. It should offer:

A. In planning:

1. Principle for the selection of content – what is to be learned and taught
2. Principles for the development of a teaching strategy—how it is to be learned and taught.
3. Principles for the making of decisions about sequence.
4. Principles on which to diagnose the strengths and weaknesses of individual students and differentiate the general principles 1, 2 and 3 above, to meet individual cases.

B. In empirical study:

1. Principles on which to study and evaluate the progress of students.
2. Principles on which to study and evaluate the progress of teachers.
3. Guidance as to the feasibility of implementing the curriculum in varying school contexts, pupil contexts, environments and peer-group situations.
4. Information about the variability of effects in differing contexts and on different pupils and an understanding of the causes of the variation.

C. In relation to justification:

A formulation of the intention or aim of the curriculum which is accessible to critical scrutiny.

—Lawrence Stenhouse

By vacating a curriculum grounded in the classical culture of the Western world, American schools and colleges were depriving citizens of their cultural traditions and contributing to the decline of Western civilization.

—Walter Lippmann

Curriculum development encompasses how a ‘curriculum is planned, implemented and evaluated, as well as what people, processes and procedures are involved...’. Curriculum models help designers to systematically and transparently map out the rationale for the use of particular teaching, learning and assessment approaches. Although curriculum development models are technically useful, they often overlook the human aspect such as the personal attitudes, feelings, values involved in curriculum making. Therefore they are not a recipe and should not be a substitute for using your professional and personal judgement on what is a good approach to enhancing student learning.

—Allan C. Ornstein and
Francis P. Hunkins

The primary responsibility for monitoring teaching practices and curriculum implementation rests with the building principal. An effective principal provides leadership aimed at diagnosing instructional behaviors, improving teaching, and continuously reviewing expected teaching of the board-adopted curriculum and accompanying supplemental materials. Monitoring needs to be systematic and occur at all levels to ensure that the curriculum is being implemented in the way the system has established. Written documents need to clarify district expectations for principals, assistant principals, and other instructional supervisors to assist and support them in monitoring the curriculum.

—*Phi Delta Kappa*

Without a well-defined set of curricular goals, all else is superfluous. Schools must have standards; this is as true for elementary schools as for colleges and high schools. It is imperative that elementary educators focus on the acquisition of basic skills and good habits through which children will be able to extend the reach of their learning in later years. We know that children will be less likely to live a productive adult life if they cannot read, write, and compute. Especially in the early grades, the best elementary school curricula are ‘unified’—one subject reinforces the next. Disciplinary borders vanish. Small children do not make fine distinctions between fairy tales and stories from history, between geography and science, and a skilled teacher can make each subject come alive by calling upon other knowledge the children possess.

—William J. Bennett

If our education system embraces ‘no common faith, no common body of principle, no common body of knowledge, no common moral and intellectual discipline ...’ how are we, to create a civil nation? How are we to nurture democratic citizenship?

—William J. Bennett

Major findings presented in the research on curriculum monitoring include the following:

- Direct, meaningful supervision of employees increases the probability of success, The term Management by Wandering Around (MBWA) was coined by Peters and Waterman in 1982 and used to describe the management style of officials in highly successful companies. There is strong evidence that school management by wandering around is specifically related to student achievement and successful schools.

MBWA principals consistently:

- Conduct classroom walkthroughs;
 - Observe and work in classrooms;
 - Participate with teachers in discussions and problem-solving regarding curriculum and instruction;
 - Give constructive feedback to teachers regarding curriculum alignment and instructional practices.
- Substantial research has linked MBWA-principal behaviors to a number of desirable results, including, but not limited to the following:
 - Increased student achievement across socioeconomic and ethnic groups
 - Improved classroom instruction
 - Improved student discipline

—*Phi Delta Kappa*

The elementary school must assume as its sublime and most solemn responsibility the task of teaching every child to read. Any school that does not accomplish this has failed.

—William J. Bennett

Some claim that, a big source of reading problems is the deadening quality of what children are given to read. Children who go through the considerable work of learning to read can lose their appetite for it if all they get is drab monosyllabic vignettes in ‘readers.’ According to a *Department of Education* study, elementary schools tend to use basal readers up to the later grades—far beyond the point for which they were originally intended.

—William J. Bennett

We do not feed pablum to children who are ready for meat and vegetables, and we should not feed verbal pablum to children able to digest literature. Children learn to read by reading—and schools should provide plenty of opportunities for them to do so. Yet one study shows that in the typical primary school class, only seven or eight minutes per day are allotted to silent reading time. Children spend about 70 percent of

the time allocated for reading instruction engaged in ‘seatwork,’ mostly on skill sheets and workbooks that may require only a perfunctory level of reading.

—William J. Bennett

Books should be a part of every child’s life. They should occupy a central place in home and classroom alike. Children should have at their fingertips books like *Where the Wild Things Are*, *Charlotte’s Web*, and *Winnie the Pooh*. This is the only way they will really grasp the idea that reading is a joy rather than a burden. Yet in a recent study of fifth graders’ reading habits, 90 percent of the children were found to read books only four minutes a day or less. The same children may watch television an average of three and a half hours a day.

—William J. Bennett

It is vitally important that children acquire solid reading skills early on, not only so they can begin to savor literature, but also so they can achieve success in school. Research shows that children who experience school failure often begin to have serious problems around fourth grade, when they must start applying their reading skills in earnest to other academic subjects.

—William J. Bennett

While it is essential that young children learn to form their letters and make individual words, those rudimentary skills should give way to the organization and expression of ideas just as soon as the child is ready. Writing should be part of the teaching strategy in every subject, not just ‘language arts.’ By the time they reach the upper elementary grades, children should be asked to compose essays about science projects and write biographical sketches of historical figures. They should even be asked to write about how they solve mathematical problems, and to put the solutions to word problems into full sentences. By the end of eighth grade, children should be writing more extended compositions, including some that call upon them to draw information from several sources. They should write and write and write some more, until it becomes second nature to put pencil—or printer—to paper and produce something coherent and expressive.

—William J. Bennett

In the early grades, children learn mathematics best when they can manipulate physical objects in their lessons. Although very young children tend to think in concrete terms, a University of Chicago project shows that teachers can also introduce abstract math concepts into the early grades by using everyday phenomena. (For example, decimals can be introduced to first graders by talking about units of money, and negative numbers can be introduced to kindergarten students by use of an outdoor thermometer.

—William J. Bennett

We need a revolution in elementary school science. There is probably no other subject whose teaching is so at odds with its true nature. We have come to think of science as a grab-bag of esoteric facts and stunts—the periodic table, the innards of frogs, the way to make little hot plates out of tin cans and wire. Worse, we have also given students the impression that science is dry and arcane matter gleaned solely from the pages of a textbook. In three major studies, the National Science Foundation found that most science education follows the traditional practice: ‘At all grade levels the predominant method of teaching was recitation (discussion) with the teacher in control, supplementing the lesson with new information (lecturing). The key to the information and basis for reading assignments was the textbook.’ If science is presented like this, is it any wonder that children’s natural curiosity about their physical world turns into boredom by the time they leave grade school—and into dangerous ignorance later on?

—William J. Bennett

Science is a way of thinking, a way of understanding the world. The term ‘scientific method’ has fallen into disfavor among educators, perhaps because it conjures up images of a white-coated man hunched over a Petri dish. It ought to be restored. The scientific method is the method of thought, of reasoning, which applies not only to explorations of the physical universe but to all the realms of intellectual inquiry that require hypothesis, inference, and other tools of brainwork. As Bertrand Russell has explained: ‘A fact, in science, is not a mere fact, but an instance.’

—William J. Bennett

Seen only as a laundry list of theorems in a workbook, science can be a bore. But as a ‘hands-on’ adventure guided by a knowledgeable teacher, it can sweep children up in the excitement of discovery. Taught by the regular classroom teacher, it can illustrate the point that science is for everyone—not just scientists.

—William J. Bennett

By the end of eighth grade, we should certainly expect that our children will know the basic saga of American history and the stories of its great men and women; the sources of our form of government in the Greek, Judeo-Christian, Roman, and Enlightenment traditions; the contours and locations of the physical world, and the major features of international landscapes; essential facts of the world’s major nations; and their rights and obligations as American citizens.

—William J. Bennett

History: Though education critics are frequently faulted for imagining a ‘golden age’ that never really existed, in the field of history it turns out that there truly was such a time. In the first quarter of the 20th century most American schools offered a histo-

ry course in every grade. The history curriculum in the elementary years was largely fashioned upon the recommendations of a 1909 report by the Committee of Eight of the American Historical Association. According to Diane Ravitch: 'the Committee's proposals organized what was already commonplace in most American schools into a regular pattern. In the first three grades, the Committee recommended the teaching of Indian life and legends, stories about Columbus, George Washington and other heroes, heroes of other lands, the celebration of national, state, and local holidays, and the stories evoked by the holidays. Thanksgiving became a time to learn about the Pilgrims; Memorial Day was a time to learn about the Civil War.' This may sound familiar. Many of today's schools make paper turkeys at Thanksgiving and do reports on Columbus. But an elementary history curriculum ...should consist of more than commemoration; it should develop rigorous knowledge based in a celebration of our own heritage. All year long, children should experience legends such as Paul Bunyan and Johnny Appleseed, should hear true stories of Revolutionary era heroes like Benjamin Banneker and Nathan Hale, should learn how women like Harriet Beecher Stowe and Emily Dickinson shaped the sensibilities of our young republic. Having acquired a clear sense of our own national traditions, students will possess the knowledge with which to compare our progress as a nation with that of other societies.

—William J. Bennett

Geography: Once an important part of the elementary curriculum, geography has suffered great neglect. A...study of 12-year-olds in eight industrialized countries found American students especially lacking in basic geographic knowledge. (In one test group, 20 percent of the students could not even locate the United States on a world map.) A...survey of North Carolina college students' geographic knowledge found 95 percent 'flunking'—that is, scoring less than 70 percent. Only 27 percent of the students knew that the Amazon River was in Brazil, and a mere 20 percent associated the Ganges with India. Of those responding, 71 percent 'never had reference to geography in their elementary schooling.'...children need to develop certain cognitive skills before they can handle abstract geographic concepts like 'north' and 'south.' But they can begin at an early age to learn illustrations of the five basic themes of geography education: location, place, relationships within places, movement, and regions.

—William J. Bennett

Civics: American civics, like American history, should be presented without sugar-coating but also without apology. This is not chauvinism. The proper first focus of study by American boys and girls, regardless of ancestry or ethnicity, is on the essential facts, the central institutions, and the fundamental principles of the United States and the western civilization whose traditions and culture are our shared

inheritance. Harry Truman said it well: ‘You see the future of this great country depends entirely on the coming generations and their understanding of what they have and what was done to create it, and what they must do to keep it.’

—William J. Bennett

Contemporary educators would do well to look at a 1941 publication of the National Education Association entitled *The American Citizens Handbook*. Not only does it provide the texts of such significant documents as the Magna Carta, the Mayflower Compact, and Lincoln’s Second Inaugural Address; it also states plainly and forthrightly that American children ought to know and understand their civic heritage. About our Constitution, for example, it says: ‘Every American should know its content. It is the greatest single document in the entire struggle of mankind for orderly self-government.’

—William J. Bennett

‘Cultural literacy’ may sound like a narrow concern of budding humanities scholars, but it is an essential frame for the skills and knowledge developed in the social studies curriculum, as well as in other subjects. E. D. Hirsch and other scholars have found that children do less well in school if they do not possess a body of shared knowledge about references and symbols. A great problem for those who design tests, for example, is that minority and non-English-proficient students may lack certain kinds of knowledge taken for granted among the majority population. Yet the problem is not limited to minorities. Children of any economic or linguistic group who get most of their cultural information from television may know a great deal about rock stars and nothing about Lewis and Clark; may be able to name seven of the top hitters in the National League, but not seven of the last ten presidents; may know more about the processing of cocaine than about the chemical composition of table salt. A principal function of elementary school must be to introduce children to the ‘common knowledge’ of our shared culture.

—William J. Bennett

Music, dance, painting, and theater are keys that unlock profound human understanding and accomplishment. Children should be handed these keys at an early age. Yet, according to the Council of Chief State School Officers, boards of education in only 13 states specified the arts within formal statements of educational goals....A study by George Hardiman and Andra Johnson in *Art Education* found that elementary schools commit only 4 percent of their school week to art instruction, with only a quarter of that provided by trained art teachers. An elementary school that treats the

arts as the province of a few gifted children, or views them only as recreation and entertainment, is a school that needs an infusion of soul. Children's imaginations yearn for the chance to transcend the ordinary, to hear and see what they have not heard and seen.

—William J. Bennett

Foreign language instruction is a good way to introduce children to other cultures—and to stimulate their understanding of geography and history. The question often put to advocates of foreign language instruction is: What language should be taught at the elementary level? It is not surprising that young students in Europe and the USSR learn English; ours is now the primary language of international commerce and diplomacy. But should American students learn Russian, or Spanish, or Urdu? Let's not become preoccupied with that question. What is important is for students, early on, to 'break the language barrier'—to grasp the fact that any language, including English, is a way of communicating, of conveying meaning. Young students can use any second language to break out of the monolingual habit. In fact, a number of school districts have begun offering Latin at the elementary level, in some cases using it to help disadvantaged students get a better grip on English. What matters is not so much that students master any specific tongue; what they should learn at the elementary level is that they can learn—that foreign language need not be alien.

—William J. Bennett

Do children get enough exercise by careening around a playground at lunchtime? Some do. Some kids burn energy like a '58 Buick. Some are always moving. But look closely at a grade school playground, and you will probably see a few youngsters off to the side, barely moving a muscle. It is for these boys and girls, as well as for the well-being of their more active friends, that an orderly program of health and physical education is a must. The Presidents Council on Physical Fitness and Sports says that American children are in remarkably bad shape: 40 percent of boys age six to 12 cannot do more than one pull-up; one in four cannot do any. Seventy percent of girls age six to 12 cannot do more than one pull-up; 55 percent cannot do any. In a 50-yard dash, today's ten-year-old girls are 'significantly' slower than those tested ten years ago. According to Council chairman George Allen: 'Most of today's adults had a taste of fitness from their phys ed classes in school before phys ed was dropped....But today's kids don't get that taste of fitness now when they're young.'

—William J. Bennett

Health and nutrition education should also be a part of the elementary curriculum. Children should learn how their bodies function, what kinds of food to eat, how to avoid illness, and what the disastrous effects of drug use will be. Maintaining children's good health is a shared responsibility of parents, schools, and the community

at large. But elementary schools have a special mandate: to provide children with the knowledge, habits, and attitudes that will equip them for a fit and healthy life.

—William J. Bennett

We should want every student to know how mountains are made, and that for most actions there is an equal and opposite reaction. They should know who said ‘I am the state’ and who said ‘I have a dream.’ They should know about subjects and predicates, about isosceles triangles and ellipses. They should know where the Amazon flows and what the First Amendment means. They should know about the Donner Party and slavery, and Shylock, Hercules, and Abigail Adams, where Ethiopia is, and why there was a Berlin Wall.

I refer back to this litany because in our examination of elementary education we asked much the same question and received a closely related answer.... While elementary graduates cannot be expected to give a sophisticated analysis of the slavery issue, we can reasonably believe that they will have heard about Dred Scott, and will know that slavery was a major cause of the Civil War.

In other words, we may plausibly expect that elementary school will give our children the basic facts and understandings of our civilization, and that it will equip them with the skills to apprehend more complex knowledge, thus awakening the appetite for further leaning.

—William J. Bennett

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

When our children are unable to ‘read’ the languages of art, or music, or mathematics, or written prose, the content these forms possess and the experience they provide cannot be known. It is in this sense that the curriculum of the school is aimed-or should be aimed-at the development of multiple forms of literacy.

—Elliott Eisner

Student evaluation is basic to student growth. It demands careful, thoughtful attention. Yet what typically passes for student evaluation, what fills the public discourse, is an overarching model of assessment, built around a host of standardized tests, that doesn’t get particularly close to student learning and doesn’t provide teachers with much information of consequence.

—Vita Perrone

Curriculum mapping was pioneered in the late 1970s and early 1980s by Fenwick English, a curriculum leader and theoretician, Early maps revealed what topics or skills were taught, in what order, and for what period of time. Coordinators or evaluators used surveys and interviews to determine how much time teachers spent on topics to promote alignment with the adopted curriculum and the assessment program. Because the data collection process went through a third party, there was often a delay in compiling and analyzing the information, sharing findings with teachers, and asking teachers to make adjustments or revisions in subject matter content, the sequence of that content, or the amount of instructional time devoted to that content.

—Heidi Hayes Jacobs

Data processing brought curriculum mapping into the computer era. Using the ‘time on task’ approach to curriculum mapping, teachers record on a map or log the time (in minutes or periods) they actually allocate to a subject, topic, skill, or behavior. This way, mapping may be completed weekly, quarterly, or yearly. At the end of each mapping period, data entry specialists or teachers enter all mapping data into a data-processing program that produces individual teacher reports and composite reports illustrating topics taught and time spent on them across grade, school, and district. The weekly or quarterly reports then provide administrators with feedback about the instructional program, which allows them to work with teachers to identify instructional trends and to modify educational programs during the course of mapping. Administrators can then produce year-end and cumulative reports to analyze and chart data that will help them, make decisions about curriculum development and modification.

—David Weinstein

Curriculum mapping provides a process by which educators can become active participants in improving teaching and learning. Because curriculum mapping builds on teachers’ strengths and creativity and focuses on students’ learning strengths, it is a teacher-owned and student-centered process. When teachers record their students’ actual learning experiences, teachers ‘own’ the curriculum and, therefore, have a greater investment in implementing and sustaining improvements.

—Rebecca Crawford
Burns

A curriculum which spends nine weeks on the Civil War is not the same curriculum that spends eighteen weeks on the Civil War, even though the objectives may be the same. The curriculum cannot be the same; the additions and deletions of other content and objectives would force it, because of time allotment, to be different. Time is related to achievement. A student who can only read his alphabet at the sixth grade has achieved an objective but not in the accepted amount of time. A teacher who

teaches only plants and the solar system for the science curriculum in the third grade has left his students with an inadequate foundation simply by not allocating time properly.

Time allotment has additional ramifications, Traditionally, teachers have each selected the amount of time given to any particular unit or content. So within a grade level or subject area, the variance in actual curriculum has been extreme. For example, one secondary biology teacher spent eight weeks on ecology and two weeks on invertebrates; her colleagues spent the inverse amount of time. Students taking Biology II had wide variance in background for that course. Imperative within curriculum supervision is that within grade levels and subject areas, content and corresponding time allotments must be similar. A curriculum should function as insurance for the students and assurance for the teacher. Students are often inadvertently set up for failure because districts do not insist that content building blocks be in place within a grade level and between grade levels or subject areas.

—Ruby K. Payne

As districts move toward stronger instructional programs and as states mandate instructional accountability, one of the areas that seems most elusive is that of curriculum supervision. Traditionally, if any supervision has occurred it has been nebulous, costly (generally computer dependent), and tied to objectives that had indirect links to content, assessment, and time allotments in many of the subject areas. Yet, without curriculum supervision, instructional supervision is myopic and systematic program improvements impossible.

—Ruby K. Payne

For several reasons curriculum is generally set on the shelf to gather dust. One is that it is unwieldy in size. Additionally, the relationship of the objectives to content and assessment is vague and indirect. Furthermore, curriculums generally contain many more objectives than can be covered in a given year or subject and is discarded as unrealistic. The teachers then pick and choose among the objectives, creating as many holes in the curriculum as had been prior to the creation of it. As curriculum changes from year to year, these changes are not reflected in the guide which becomes another reason for setting it on the shelf.

—Ruby K. Payne

FABLE OF THE ANIMAL SCHOOL

One upon a time the animals decided they must do something heroic to meet the problems of 'a new world,' so they organized a school. They adopted an activity curriculum consisting of running, climbing, swimming and flying, and, to make it easier to administer all the animals took all the subjects.

The duck was excellent in swimming, better in fact than his instructor, and made passing grades in flying, but he was very poor in running. Since he was slow in running, he had to stay after school and also drop swimming to practice running. This kept up until his web feet were badly worn and he was only average in swimming. But average was acceptable in this school, so nobody worried about that except the duck.

The rabbit started at the top of the class in running, but had a nervous breakdown because of so much make-up work in swimming.

The squirrel was excellent in climbing until he developed frustrations in the flying class where his teacher made him start from the ground-up instead of from the tree-top-down. He also developed charlie horses from over exertion and then got C in climbing and D in running.

The eagle was a problem child and was disciplined severely. In the climbing class he beat all the others to the top of the tree, but insisted on using his own way to get there.

At the end of the year, an abnormal eel that could swim exceedingly well and also run, climb, and fly a little had the highest average and was valedictorian.

The prairie dogs stayed out of school and fought the tax levy because the administration would not add digging and burrowing to the curriculum. They apprenticed their child to a badger and later joined the groundhogs and gophers to start a successful private school.

Does this fable have a moral?

— G. H. Reavis

The most important fact about those who attend elementary school is that they are children. Unlike high school and college students, elementary school pupils are still navigating the high seas of early development, exploring a new world of information, and seeking to master their own minds and bodies in the process. Young children are full of contradictions. They are stubborn and malleable; persistent and distracted; charming and incorrigible. So, in discussing educational practices and policies that will affect them, let us begin by stipulating their uniqueness.

—William J. Bennett

When state legislators pass laws regarding the teaching of the dangers of drug abuse, the inclusion of physical education, or requirements outlining the time to be spent on given subjects, they are engaged in curriculum planning. When local school boards

decree that reading will be taught according to a hierarchy of specific behavioral objectives, they are involved in curriculum planning. When school staffs decide to use television broadcasts as the basis for interesting students in current events, they are engaged in curriculum planning. When students decide which books they will read in a literature course, they are involved in curriculum planning.

—John Goodlad

According to popular wisdom, young adolescents are inherently id-driven, irrational, and argumentative. In mortal combat with adult authority, they have withdrawn into a peer culture which rejects adult values. They are interested primarily in social concerns, not intellectual activities. Therefore, the best thing schools can do is to place them in a highly structured environment, address their social needs, and hope that they will eventually outgrow the ‘disease’ known as early adolescence.

—John Arnold

My experience has left me with immutable optimism about the potential of young adolescent children. Given learning opportunities that truly challenge, the responsibility to exercise meaningful choices, and respect for their ideas and dignity, youngsters are capable of tremendous commitment and dazzling originality. Underneath the confounding, frustrating, and often exhausting surface, there lies an indomitable human spirit, capable of the exceptional.

—Chris Stevenson

It is important to teach all areas of the curriculum, not just those which are assessed. For example, one of the most effective strategies for teaching the entire curriculum is to teach English language arts and mathematics in conjunction with science, social studies, healthful living, foreign languages and the arts. Integration as a curriculum implementation strategy links the content and skills from various disciplines. It is our belief that students who receive a balanced curriculum and possess the knowledge, skills, and abilities to transfer and connect ideas and concepts across disciplines will be successful as measured by standardized tests as well as other indicators of student success.

—*Public Schools of
North Carolina*

Traditional top-down curriculum imposes adult standards, subject matter, and methods upon those who are only growing slowly toward maturity. The gap is so great that the required subject matter [and] the methods of learning and of behaving are foreign to the existing capacity of the young. But the gulf between the mature or adult products and the experience and abilities of the young is so wide that the very situation forbids much active participation by pupils in the development of what is taught.

—John Dewey

It may surprise many citizens that most school districts cannot state the extent to which the standardized tests used in their schools assess the curriculum. The divorce between testing and curriculum may be one reason many districts oppose increased testing. It is also why teacher antipathy towards testing is usually militant. Most teachers have never learned to use test results and relate them to their own teaching objectives. Ordinarily, standardized test questions are considerably more definitive than most classroom teaching objectives. Furthermore, when the curriculum is so vague that teachers can do most anything, standardized tests exert a kind of control not sensed from other quarters.

—Fenwick English

Contextually grounded curriculum has a kind of ‘goodness of fit’ in which professional practice is shaped by, and in turn shapes, the social environment. No practice, or assumption from which practice emanates, should be assumed to be correct until a kind of environmental sensing validates the reality of the situation. Curriculum development must ‘fit’ the context. In this sense, curriculum development must be ‘grounded’ first in context and then defined and applied. There are no universal curricular practices that are good for all times and all places. There are no context-free- principles that are immune to the influences of a specific time and situation.

—Fenwick English

One can see immediately that, depending upon point of view and motivation, curriculum may be ‘fit for use’ by one group and unfit for another. Administrators, for example, may want the curriculum to provide an overall focus for teaching across many grade levels. If the curriculum offers this focus, administrators are satisfied because administration’s job is direction and control.

If a teacher wants to do something innovative or idiosyncratic, however, a fixed curriculum that intrudes on this personal agenda may be viewed as unsatisfactory. Much of the conflict about curriculum, its content and specification, is about the authority to define and deliver what someone has determined to be most appropriate, exclusive of anyone else. Curriculum per se is not the issue. Autonomy is the real issue.

—Fenwick English

Most curriculum guides produced by school systems are notoriously dysfunctional. The guides are not constructed to be functional. They are bulky and very difficult to use, and rarely assist teachers in making useful content-inclusion decisions. Very few contain information about alignment to texts or testing. Most are collections of methods or activities which experienced teachers find unnecessary or even counterproductive.

Curriculum guides should fit the work context. They should provide the ‘connectedness’ required within a school and a school system to be responsive to its environment. Loose or open-ended work statements only fit work situations where outcomes are not considered important, or where standardized testing is not employed.

—Fenwick English

Virtually all the major topics we are being asked to infuse into the learnings expected of our students are societal concerns. We need to be reminded that society’s needs at any given time are a source of the curriculum. They are generally expressed to the schools in the form of legislative mandates. Any topic that makes its way through the legislative process is in fact a serious concern of that society,

Since topics such as global education, multicultural education, high-order thinking skills, and career education are not the exclusive concern of any one discipline, they must be integrated across the curriculum. This forces us to work harder to establish priorities in terms of the curriculum to be delivered. This means re-evaluating both content decisions and our use of time.

All of this also forces us to think about other forms of curriculum delivery and our instructional partnership with parents. The answer to these concerns is the basis for true educational reform. I say ‘true reform’ in that it must start with society thinking more clearly about the expectations for public schools.

—Luther Kiser

As more and more new topics are added to the curriculum, teachers are asking when, where, and why to include them. They are being told to use interdisciplinary approaches and infusion. These answers ignore the fact that it is impossible to add more topics without making room for them by eliminating or reducing something that is already there. Otherwise, something has got to spill out.

Over the past three years, our state education department has added two new components to the health curriculum: personal safety and AIDS. Using an interdisciplinary approach, a teacher might survey her class’s knowledge of AIDS. Then, after the lessons, she could administer the same survey again and have students compare the two by preparing line, bar, and circle graphs. Thus, math, study skills, and computer technology could be taught along with health.

Nevertheless, the bottom line is ‘that something had to be added—those lessons on AIDS had to be taught so that comparing the survey results would be meaningful—thereby crowding something else out of the curriculum, already filled to overflowing, there just isn’t any place left to infuse more topics.

—Helen Murphy

WHY NOT?

Why not say that school is for kids
rather than teachers or janitors
or secretaries or cooks
or architects or even principals?

Why not say it and believe it.

Why not abandon required homework
and put a few kids on the streets
or reading books or watching TV
or talking with a friend
or picking pimples
or just sitting?

Why not throw out
mandatory homework
and find another way
to intimidate kids?

Why not bite your tongue hard
and justify all the busywork you've pawned off on kids
under the guise of 'excellence in education.'

Why not eliminate homework and find a better way to teach
cooperative cheating?

And if all else fails

Why not try to excite, stimulate, energize, or enflame a kid
and let the homework take care of itself?

Why not build a humanities cafeteria
with an a la carte line loaded with goodies.

Perhaps a student will learn to serve himself occasionally
without always waiting sheep-patiently for the waitress
to pass the well-cooked curriculum au jour
into his hands, into his head

Into his heart

the leftovers into his intellectual garbage can
from language and lit and composition
and LIFE and maybe
just maybe

MR will be better known as Motivational Research
than as Mentally Retarded

Why not stop drawing and redrawing the floor plans
to our homemade curriculum prisons
with every fatter in place
anchored securely with the cement of whatever's current
from the past?
Why not (indeed) stop drawing fresh plans of old prisons
and start tunneling or scaling or vaulting
or even scratching a little.

Why not try to find relevance
between what goes on in class and something else
anything else.

Why not ask a parent for help or a teacher
or a curriculum consultant
or the United States Commissioner of Education?
Why not ask a life guard

Or a truck driver
or a post?

Why not retire the miniature federal reserve board
its every school
that controls the banking practices in classrooms?
A kid earns a credit and puts it into the bank
and once it is safely deposited
he throws away all of his notes and admits
original innocence
just another virgin brain
with thirteen credits in the bank
Earn another credit and put it in the bank
earn them, bank them, forget them
bank 'em, bank 'em, forget 'em
finem, earnem, bankem, forgetem
Why not claim language as out rightful stock-in-trade
our raw material
and also our finished product
Why not help a kid take pride
in the power of language personal and social
Why not kelp a kid use language to communicate
with an editor, a draft board,
a girl
or to discover the nobility of man?

Why not dissolve the red ink communion
(the grades that Degrade)
Why produce self-satisfied grade mongers
judging their worth by OUR standards
that make credit bankers out of philosophers
that make us teach multiple choice knowledge
and that convince kids
that the dung beetle
who collects the biggest cognitive ball is best.
Why not try to evaluate kids honestly
individually
Why not try to find what a kid learns from you
rather than what he hasn't learned from his past teachers,
The difference between a student and a teacher
should be something more than a grade book
or an answer book.

Why not make attendance, optional?
If the multi-mediaed McLuhan is right
and going to school interrupts education
Why not entice with connection to life
not plague with demands for inconsequence

Why not take our eyes off the rearview mirror long enough
to think September 6, 1999
What will IT be?

pain?

vitamin-enriched coma?

darkness???

Why not look into a crystal book or ball and find out
and at the same time find out how our classes can
let a student want to learn throughout life
or make him mankind-sensitive
or let him see his choices and decide

or show him how to love himself
or prepare him for more leisure time AND for cybernation
one cyber Nation, under IBM
indivisible
with conformity and structure for all
Maybe

—*Media and Methods*,
September, 1968

CURRICULUM

Noted Scholars do not agree,
And yet you are expecting that we
Shall rack our brains so up we'll come
With a definition of 'CURRICULUM'!!

'CURRICULUM,' Where's this word from?
Through Latin roots it has come;
Its meaning that of 'chariot racecourses,'
But we deal with kids, not race horses!!

Is it equated to only the subjects that are taught,
Or does it extend to things that are not?
Is it only the learning one gets in schools,
Or does it include many other tools?

Is it all the learning experiences one will ensue,
Or is it limited to just a selected few?
Does it allow for individual growth and needs,
Considering more than how well one reads?

Does it mean the materials, guides, and books,
In all the courses we have took?
Or does it, as many hope,
Go far beyond this limited scope?

Is it only a written document or plan,
Or does it include 'unwritten' thoughts of man?
Is it only a set of objectives to be met,
Things one learns and then forgets?

Is discrete tasks and concepts to master,
Moving the students at a pace much faster
Than that at which they can succeed,
But we will finish this book, indeed!!

Does it reflect the culture where they live
And a knowledge, appreciation and understanding give,
In order that all will earnestly strive,
To keep time honored customs and values alive.

Should social reconstruction be addressed,
Or is this issue best laid to rest,
Believing that it's not up to schools,
To effect a change of society's rules.

In looking at this formidable task,
Several questions we must ask;
Should all of these aspects and images combine
In order to adequately define?

Do each of these have a place
As we embark on the curriculum 'race'?
Is each not one face of the whole
In order to reach our desired goal?

If we view education as life itself
Then none of these can be put on the shelf;
So, therefore, it would clearly seem
They're each an integral part of the curriculum scheme.

As the world continues this great debate,
In closing we would like to state;
That we have only touched on some
Of the issues effecting curriculum.

You, my friend, may have a different view
Of what curriculum means to you;
To us it's all the methods we employ
To educate each girl and boy.

As educators, then, the job is ours
To challenge students to reach for the stars;
And this great task will only be done
Through an all encompassing curriculum.

—Judy Aylor

Including poetry in the integrated curriculum has the potential to broaden students' perspectives, increase their understanding, and support their journey toward making sense of their world. When students have regular, meaningful experiences with poetry they will begin to make connections between poetry and the world they live in, to ask questions about their world, and to look at the world in new ways. Poetry, as it reflects the sounds, joys, sorrows, and anger in our lives, will touch parts of ourselves that bring joy as well as aspects of ourselves we simply don't like. Poetry allows students to make connections to their lives and to their emotions.

—Donald Graves, Janet
A. Finke & Karen
Wood

Curriculums, textbooks, and teacher training have become the domain of professional educationists. Under their guidance, schools emphasize the process of learning rather than its content. Both are important, extremely important in the teaching of history and literature. But so much emphasis has been placed on process that content has been seriously neglected. One can see the imbalance in the opening pages of a teacher's guide to a widely used textbook series. Scores of skills to be taught are set forth: everything from drawing conclusions and predicting outcomes to filling in forms and compiling recipes. The cultural content of learning, on the other hand, is given only brief mention.

—Lynne Cheney

The teaching of skills is an expected outcome from the increased emphasis on exams that are devoted almost entirely to testing for them. With the enormous pressure politically to get more bottom-line achievement from these kinds of tests, increased attention to the so-called basic skills is the result. Teachers have responded to the criticism, and now that they are responding to the criticism, they're caught in another situation: skills are being taught almost entirely content-free.

—John Goodlad

Teachers share the concern about the lack of knowledge of kids because we see it every day. I've had kids who thought Jesus and Shakespeare were contemporaries.

—Patrick Welsh

In our high school, we have, if anything, too much of the historical approach to literature where you have one of these boring textbooks where kids memorize historical dates and link them to literary dates and names. Kids themselves say there's so much memorization in school that the game is to memorize the stuff, get the grade on the test, and then forget it.

—Patrick Welsh

We have traditionally expected certain content to be taught in schools—content that we were taught. If there is a finite list of 'cultural literacy' requisites reflecting the 'face' of this nation, then as the face of the nation changes so should that list and the mechanism for measuring its achievement. Those involved in determining that list should also accurately reflect the face of the nation. As governance of our schools increasingly becomes the responsibility of the community surrounding the school, I suspect curriculum diversity, rather than shared culture, will be the outcome.

—Donna Jean Carter

The spoken word and the printed page always imply unstated information. A writer is unlikely to interrupt a story about Babe Ruth, for example, to explain terms like 'home run,' 'strikeout,' or 'New York Yankees.'

Authors assume that readers are conversant with the elements of baseball and with other basics of our culture. They use the names of particular places, people, events, eras, and ideas to convey inexplicit—but nevertheless specific—meanings. The more of these referents that youngsters recognize, the greater their capacity will be to comprehend what they read, see, and hear.

Students need to be familiar with 'Columbus,' 'checks and balances,' and "The Great Depression.' They need to know when the Civil War occurred and why World War II was fought. Schools should make sure that all youngsters learn the pivotal events of history, important places on the globe, and the great written works of Western literature. Other countries and cultures should be studied, too, but first our youngsters need to know their own.

Schools and communities should go through the arduous process of (1) reaching consensus on which facts and concepts are vital for all students to know, (2) determining the appropriate grade levels to introduce these ideas, and (3) setting the right ways to teach and assess for mastery.

Assimilating essential knowledge should begin in the early grades. The sooner students' mental shelves are stocked with the contents of our culture, the greater will be the payoff in their school studies, their other reading, and their lives.

—Chester E. Finn, Jr.

To give a broad, solid learning foundation to students, our schools should teach from a national database. I realize that some children will never grasp cultural literacy, but the classroom should expose all children to the opportunity to reach for it.

Today, on the elementary level, we are fraught with test accountability and laden with the teaching of basic skills. We must even take time to teach the children how to take the basic skills tests. Teaching only skills, though, is too isolated and a dead end. I prefer to teach skills by integrating them into specific curriculum content....I can take the events surrounding the Kuwaiti tankers carrying oil to the West and use listed terms to teach distances in math, specific routes and locations in geography, or the meaning of the Stars and Stripes (lying above those vessels for social studies.

Children who know such information could begin to forecast events and foresee the personal impact those events may have. They would then see how relevant the material is to their everyday lives. It would be an 'Aha!' moment in which they would realize, 'I can really use this stuff. It is important, and it does have meaning for me.' I would have helped to forge their cultural background and opened the door to their future learning....We as educators ought to get our priorities in order, so that our children on all levels will have these opportunities to grow and to expand intellectually. A national vocabulary is certainly a starting point.

—Zenith Wainner

The curriculum covers too much too fast in a way that is too detached from concrete human experience. Students do not formulate these fragments into schema for understanding; instead, the obsessive coverage leaves their minds numb. Teachers bombarded by coverage mandates have little time to plan ways to engage students with the material.

Curriculum should be grounded in the analysis of texts and artifacts, in the structure and content of subjects, and in the study of persistent human themes. Sufficient background information will be learned through such encounters. If we were to derive instructional encounters from a compiled cultural vocabulary list...we would only invite further fragmentation.

The development of cultural literacy is not all there is to schooling, but even if it were, we would promote cultural literacy better by more in-depth study of curriculum subjects than by compiling new national vocabulary lists.

—Fred Newmann

In the reading process, meaning is produced as information from the text interacts with knowledge possessed by the reader. Again and again, research on the reading process has documented the importance of shared knowledge, background knowledge, and prior knowledge to reading comprehension.

—Jean Osborn

Religious concerns about the meaning and purpose of human life are accommodated to science in different ways. Catholics and liberal Protestants accept the general picture of human evolution, with God having some role in the process. At the other extreme, fundamentalists vie to substitute their interpretation, called ‘creation science.’

Scientists, having wrested their discipline from ecclesiastical control, resist mixing religious ideas into science classroom content. Most consider ‘creation science’ inherently religious. Yet many believers, fundamentalist or not, see in any science that leaves God out a science that opposes religious belief.

Educators cannot look to the courts for permanent resolution of these impasses. As Edward Larson explained in *Trial and Error* (Oxford 1985), ‘A lasting legal victory on the issue of evolutionary teaching await[s] a verdict of popular opinion on evolution—while that verdict [is] itself at least partially dependent on the content of public instruction.’ Because of the influence teaching has in swaying public opinion and law, any legal victory is likely to be temporary and subject to challenge.

Since, even-without consensus, education must proceed, the American Scientific Affiliation produced *Teaching Science in a Climate of Controversy*. This...booklet helps teachers distinguish religious questions from scientific ones, treat students’ religious convictions with respect, and still teach science with integrity and openness. Presented that way, evolutionary science is no threat to believers in divine creation.

—Walter Hearn

If instructional materials are required, we must know that they are academically sound, appropriate for the age and conceptual purposes served, and deserving of community support.

Materials cannot shy away from topics simply because they happen to be controversial. Beyond building patriotism, American history textbooks certainly should display suitable attention to the changing roles of women, to the nation’s response to immigrants and minority ethnic groups, and to the role of religion in American life. Health materials should deal deliberately and responsibly with human sexuality, love, and pregnancy, as well as with cancer, AIDS, and death.

To adopt materials that reflect reality and social values as we know them, however, is important but not sufficient. Two other points must be kept firmly in mind. First, instructional materials that deal with issues in dispute in our society can, explicitly or by omission, be biased in such a way as to indoctrinate rather than to inform and liberate. They can, but they need not—no, they *must not*. It follows that teachers must accompany required instructional materials with study of additional appropriate and contrasting viewpoints.

Second, consideration of how sensitive topics have been treated leads to the further conclusion that, however widely accepted the values supporting such treatment in schools are, such support is fluid, not unanimous, and conditional. Required materi-

als must be periodically reviewed and legitimized by enough teachers and administrators. In open democracy, there can be no secret garden of curriculum decisions.

—O. L. Davis, Jr.

Two centuries ago, the framers of our Constitution crafted a bold new concept of religious freedom. In the First Amendment, they erected what Thomas Jefferson called ‘a wall of separation between church and state.’ That wall has freed government from sectarian strife and churches from governmental interference.

In the public schools, the proper location for the wall has not always been clear. Over the years, however, the boundaries of church and state interests have been clarified, permitting students to be excused from particular activities that run counter to their faiths. Thus children who are Jehovah’s Witnesses need not salute the flag, Jewish children may choose not to sing Christmas carols, and Amish parents may educate children at home after age 14. This is as it should be.

Today, however, the religious right is exerting pressure to demolish the wall that has separated church and state, and their efforts have begun with the public schools. In complaints that span virtually the entire curriculum, plaintiffs in Tennessee and Alabama courtrooms have argued that exposing their children to viewpoints different from their own violates their religious rights. In Tennessee, a passage from *The Diary of Anne Frank* was even faulted for failing to portray the plaintiffs’ religion as superior to all others,

Public schools are a unique meeting place where young people with very different lives and beliefs come together under one flag. They learn to accept each other, to understand beliefs they do not personally share, and to appreciate the rich mosaic of American culture, in a word, they learn tolerance, which has been and continues to be an essential cornerstone of the nation’s foundation. The religious right wants such tolerance out of the schools. This demand is one that educators must resist.

—John Buchanan

The skills needed for college and work in the 21st century are essentially the same skills needed in the 20th century, but with the addition of technological know-how.

—Diane Ravitch

A lot of the stuff that we teach in K-12—and I know from having been a college professor, a lot of the stuff we teach in college—has a shelf life now of about a year and a half. And you aren’t going to probably remember it, and it’s probably out of date anyway.

—Charles R. Knapp

The skills that are required start with a basic mastery of the academic content areas, especially the ability to read well, including literature and some level of technical information such as contracts and credit reports; to be able to write well, includ-

ing correspondence and papers; to know how to research information and formulate that information into a paper; the ability to do reasonably complex math, including the mastery of common equations; and the ability to think critically, including analyzing advertising claims and political rhetoric. Also needed are skills like knowing what is required in a workplace—dress, punctuality, work skills, etc.

—Christopher Cross

We are hearing from employers that students have to have soft skills, work on a team, and learn to think. They need the soft skills alongside of the technical skills. You have to learn how to do presentations, write proposals, and understand customer requirements to be a well-rounded employee.

—Gene Longo

Our schools are, in a sense factories in which the raw products (children) are to be shaped and fashioned into products to meet the various demands of life. ... This demands good tools, specialized machinery, continuous measurement of production to see it is according to specifications, the elimination of waste in manufacture, and a large variety in the output.

—E. P. Cubberley

Decisions based on test scores must be made with the awareness of the imponderables in human behavior. We cannot measure the rare qualities of character that are a necessary ingredient of great performance. We cannot measure aspiration or purpose. We cannot measure courage, vitality or determination.

—Nelson Rockefeller

At root here is a fundamental dilemma. Those personal qualities that we hold dear—resilience and courage in the face of stress, a sense of craft in our work, a commitment to justice and caring in our social relationships, a dedication to advancing the public good in our communal life—are exceedingly difficult to assess. And so, unfortunately, we are apt to measure what we can, and eventually come to value what is measured over what is left unmeasured. The shift is subtle, and occurs gradually. It first invades our language and then slowly begins to dominate our thinking. It is all around us, and we too are a part of it. In neither academic nor popular discourse about schools does one find nowadays much reference to the important human qualities noted above. The language of academic achievement tests has become the primary rhetoric of schooling.

—*Committee of the
National Academy
of Education*

[How] may we best prepare our young people to keep their individuality, initiative, creativity in a highly organized, intricately meshed society?... Our conception of excellence must embrace many kinds of achievement at many levels.... There is excellence in abstract intellectual activity in art, in music, in managerial activities, in craftsmanship, in human relations, in technical work.

—Nelson Rockefeller

A fifth-grader is expected to read about 2,500 textbook pages a year. For all 12 grades that student is expected to 'learn' 30,000 pages of textbooks with a never-ending barrage of facts, most of which we know are forgotten by the time the student flips on his or her TV or iPod after school.

—Steven Wolk

So why go to school? We can no longer tinker with a broken and inhuman paradigm of schooling- We must stop schooling our children as if they were products and reclaim our schools as sacred places for human beings. We must rethink our classrooms as vibrant spaces that awaken consciousness to the world, open minds to the problems of our human condition, inspire wonder, and help people to lead personally fulfilling lives. If our democracy is to thrive, our schools must change into these exciting spaces. Otherwise, we will not be a democracy 'of the people,' but a corporate nation of workers, TV viewers, and shoppers. As professional educators, it is our responsibility to challenge our curricula and to create schools that are personally and socially transformative. That's why we should go to school.

—Steven Wolk

It is as though our society has simply decided that the purpose of schooling is economic—to improve the financial condition of individuals and to advance the prosperity of the nation. Hence students should do well on standardized tests, get into good colleges, obtain well-paying jobs, and buy lots of things. Surely there must be more to education than this?

—Nel Noddings

It is quite strange how little effect school — even high school — seems to have had on the lives of creative people. Often one senses that, if anything, school threatened to extinguish the interest and curiosity that the child had discovered outside its walls.

—Mihaly
Csikszentmihalyi

The sense of vitality and the surge of emotion we feel when touched by one of the arts can also be secured in the ideas we explore with students, in the challenges we encounter in doing critical inquiry, and in the appetite for learning we stimulate. In

the long run, these are the satisfactions that matter most because they are the only ones that ensure, if it can be ensured at all, that what we teach, students will want to pursue voluntarily after the artificial incentives so ubiquitous in our schools are long forgotten.

—Elliot Eisner

Nothing can be accomplished in the way of school improvement unless we first have a clearly defined and focused curriculum. However, writing the curriculum is only a first step. Implementation procedures must be planned to assure that teachers are really teaching the new curriculum and, most important, results must be analyzed to see if student learning is occurring and regularly improving. The chances of real success are slim unless teachers are given the opportunity to collaborate on the ‘nuts and bolts’ of what their jobs are about rather than vague new processes or innovations. Teamwork needs to be task oriented so meeting time is not wasted and everyone has a clear understanding of the next step. Progress is continually evaluated and success celebrated!

—*The Monthly
Curriculum Report*

When I was in elementary school in Nebraska in the early 1900s, a guiding principle was that the material should be distasteful to students—not interesting but quite the opposite. The theory was that students really had to discipline themselves and work hard on topics they found unpleasant.

—Ralph W. Tyler

The more we exhort rhetorically the ideal of a common curriculum for all students up to the time of entry into the work force and autonomous functioning as citizens and parents, the more we tempt educators to use arrangements such as tracking ‘to organize away’ the difficult problems of dealing with student variability.

—John L. Goodlad

When employed K-12, [curriculum alignment guides] help manage and control the links between the separate units of a school district; they make curriculum articulation an approachable problem.

—Fenwick W. English

There is in the culture of this and other countries the belief that people fall naturally into one of two categories—those who can learn and should work with their heads and those who can learn and should work with their hands. Schools generally favor those thought to be in the former category.

—John L. Goodlad

At the very heart of our professional responsibility is how to assure for all of our primary and secondary students common encounters with the most significant domains of human experience.

—John L. Goodlad

If efforts to change curriculum thinking and practice in schools are to succeed, we must also experience complementary efforts within the education industry— particularly among textbook publishers.

—Nancy R. Carwile

In its briefest form, an outcome is a culminating demonstration of learning. It is a demonstration: what it is the kids will actually do. Most people have thought over the years that the outcomes were the curriculum content: What will the kids know? What can they recall on a test? But outcomes are not content, they're performances.

—Bill Spady

Curriculum development has moved to the classroom. Today's teachers know that the surest way to make lasting instructional improvements is through a clear, thorough understanding of the principles of curriculum development by those who implement these changes—the teachers.

—William H. Schubert

Teachers are not frustrated or guilt ridden to the extent that we are ready to 'sacrifice' our autonomy for any one of the curriculum perspectives.

—Roberta Jackson

What Franklin Bobbitt Might Say If He Could Only See Us Now

To all you stalwart schoolmen
And the factories you run;
To all you frazzled teachers and
The 'frills' you've learned to shun;

To the planners and researchers
And their scientific schemes:
Congratulations! Thank you! You've
Surpassed my wildest dreams!

I applaud your test-tube language
And your number-covered forms,

Your units of performance, your
Standards, and your norms.

I celebrate your objectives, so
Behavioral, so complete.
I love the way your test results
Make knowledge look so neat.

Distar? Workbooks? M.B.O.?
I never had such tools.
I dared not hope technology
Could so control the schools.

I like those curriculum engineers:
Bereiter, Mager, and Popham,
With 'Back to the Basics' and ETS.
There's not much left to stop 'em.

Your direct instruction, contracts,
And curriculum in carts;
Your labels and your tracking,
Your Apple data charts—

It's all shown me how much I lacked,
How much I didn't know.
How I could've used it all,
Those many years ago.

You've scientized the whole shebang!
Efficiency? You employ it.
Just one thing still bothers me:
Why don't the kids enjoy it?

—Richard Larson

I think my deepest criticism of the educational system . . . is that it's all based upon a distrust of the student. Don't trust him to follow his own leads; guide him; tell him what to do; tell him what he should think; tell him what he should learn. Consequently at the very age when he should be developing adult characteristics of choice and decision making, when he should be trusted on some of those things, trusted to

make mistakes and to learn from those mistakes, he is, instead, regimented and shoved into a curriculum, whether it fits him or not.

—Carl Rogers

The most controversial issues of the twenty-first century will pertain to the ends and means of modifying human behavior and who shall determine them. The first educational question will not be ‘what knowledge is of the most worth?’ but ‘what kinds of human beings do we wish to produce?’ The possibilities virtually defy our imagination.

—John Goodlad

The arts’ position in the school curriculum symbolizes to the young what adults believe is important.

—Elliot W. Eisner

The important outcomes of schooling include not only the acquisition of new conceptual tools, refined sensibilities, a developed imagination, and new routines and techniques, but also new attitudes and dispositions. The disposition to continue to learn throughout life is perhaps one of the most important contributions that schools can make to an individual's development.

—Elliot W. Eisner

I would rather see a school produce a happy street cleaner than a neurotic scholar.

—A. S. Neill

Approach to Evaluation:

1. Establish broad goals or objectives.
2. Classify the goals or objectives.
3. Define objectives in behavior terms.
4. Find situations in which achievement if objectives can be shown.
5. Develop or select measurement techniques.
6. Collect performance data.
7. Compare performance data with behaviorally stated objectives

—Ralph Tyler

One parent asked, ‘How can our curriculum better reflect how our children act outside the school?’

A greater alignment between the curriculum and the nature of our children.

—Thomas J.
Sergiovanni

In schools the main problem is not the absence of innovations but the presence of too many disconnected... piecemeal, superficially adorned projects... We are over our heads.

—Michael Fullan

Schools must inquire deeper into their own practices, explore new ways to motivate their learners, make use of learning styles, introduce multiple intelligences, integrate learning, and teach thinking, and in the process discover the passion and moral purpose that makes teaching exciting and effective.

—Michael Fullan

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

If the purpose of secondary education is to improve all students’ ability to be successful as adults why is Algebra II required but not child-rearing or financial literacy or ethics?

—Grant Wiggins

WHAT STUDENTS ACTUALLY NEED TO SUCCEED IN THE CURRENT WORLD:

- Philosophy, including critical thinking and ethics.
- Psychology, with special emphasis on mental health, child development, and family relations.
- Economics and business, with an emphasis on market forces, entrepreneurship, saving, borrowing and investing, and business start-ups.
- Woodworking or its equivalent; you should have to make something to graduate.
- Mathematics, focusing primarily on probability and statistics and math modeling.
- Language arts, with a major focus on oral proficiency (as well as the reading and writing of nonfiction).
- Multimedia, including game and web design.
- Science: human biology, anatomy, physiology (health-related content), and earth science (ecology).
- Civics, with an emphasis on civic action and how a bill really becomes law; lobbying.
- Modern U.S. and world history, taught backward chronologically from the most pressing current issues.

—Grant Wiggins

Education in a democracy, both within and without the school, should develop in each individual the knowledge, interests, ideals, habits, and powers whereby he will find his place and use that place to shape both himself and society toward ever nobler ends....the following ‘main objectives of education’: (1) health; (2) command of fundamental processes (reading, writing, arithmetical computations, and the elements of oral and written expression); (3) worthy home membership; (4) vocation; (5) citizenship; (6) worthy use of leisure; and (7) ethical character.

—1918 *Report on the
Cardinal
Principles of
Secondary
Education*

The environment must be rich in motives which lend interest to activity and invite the child to conduct his own experiences.

— Maria Montessori

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

When you teach a child something you take away forever his chance of discovering it for himself.

—Jean Piaget

How can we, with our adult minds, know what will be interesting? If you follow the child...you can find out something new.

—Jean Piaget

The biggest mistake of past centuries in teaching has been to treat all students as if they were variants of the same individual and thus to feel justified in teaching them all the same subjects the same way.

—Howard Gardner

We've got to do fewer things in school. The greatest enemy of understanding is coverage...You've got to take enough time to get kids deeply involved in something so they can think about it in lots of different ways and apply it.

—Howard Gardner

School appropriates the money, men, and good will available for education and in addition discourages other institutions from assuming educational tasks. Work, leisure, politics, city living, and even family life depend on schools for the habits and knowledge they presuppose, instead of becoming themselves the means of education.

— Ivan Illich

It is not systematic education which somehow molds society, but, on the contrary, society which, according to its particular structure, shapes education in relation to the ends and interests of those who control the power in that society.

—Paulo Freire

In education, we need to begin paying attention to matters routinely ignored. We spend long hours trying to teach a variety of courses on, say, the structure of government or the structure of the amoeba. But how much effort goes into studying the structure of everyday life — the way time is allocated, the personal uses of money, the places to go for help in a society exploding with complexity? We take for granted

that young people already know their way around our social structure. In fact, most have only the dimmest image of the way the world of work or business is organized. Most students have no conception of the architecture of their own city's economy, or the way the local bureaucracy operates, or the place to go to lodge a complaint against a merchant. Most do not even understand how their own schools — even universities — are structured, let alone how much structures are changing.

—Alvin Toffler

Revising a textbook, preparing a new syllabus, or administering new and different examinations will make some significant changes, but only if the people who are concerned grasp and accept the changes. They must come to have greater understanding of the area in which they work, of the methods which are most appropriate for imparting information and inspiring participation. They must develop skills and techniques of communicating, evaluating, and understanding which they may not have had before.

— Jack R. Frymier and
Horace C. Hawn

Tyler identified three data sources which must be used in curriculum development: society, student, and subject matter. These three data sources have historically stimulated alternative conceptions of curriculum and the development of different curriculum designs. Scholars have long recognized the importance of the three data sources, but too often missed Tyler's message—that the use of one of the data sources alone is inadequate in developing curricula. A comprehensive curriculum must use all three.

—M. Frances Klein

If education is always to be conceived along the same antiquated lines of a mere transmission of knowledge, there is little to be hoped from it in the bettering of man's future.

—Maria Montessori

We learn simply by the exposure of living. Much that passes for education is not education at all but ritual. The fact is that we are being educated when we know it least.

—David P. Gardner

The ability to think straight, some knowledge of the past, some vision of the future, some skill to do useful service, some urge to fit that service into the well-being of the community—these are the most vital things education must try to produce.

--Virginia Gildersleeve

What the best and wisest parent wants for his own child that must the community want for all its children.

--John Dewey

It is because modern education is so seldom inspired by a great hope that it so seldom achieves a great result. The wish to preserve the past rather than the hope of creating the future dominates the minds of those who control the teaching of the young.

--Bertrand Russell

Since we cannot know all that is to be known of everything, we ought to know a little about everything.

--Blaise Pascal

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. It is a very grave mistake to think that the enjoyment of seeing and searching can be promoted by means of coercion and a sense of duty.

—Albert Einstein

Almost all education has a political motive: it aims at strengthening some group, national or religious or even social, in the competition with other groups. It is this motive, in the main, which determines the subjects taught, the knowledge offered and the knowledge withheld, and also decides what mental habits the pupils are expected to acquire. Hardly anything is done to foster the inward growth of mind and spirit; in fact, those who have had the most education are very often atrophied in their mental and spiritual life.

—Bertrand Russell

A general State education is a mere contrivance for moulding people to be exactly like one another; and as the mould in which it casts them is that which pleases the dominant power in the government, whether this be a monarch, an aristocracy, or a majority of the existing generation; in proportion as it is efficient and successful, it establishes a despotism over the mind, leading by a natural tendency to one over the body.

—John Stuart Mill

It would be extremely naive to expect the dominant classes to develop a type of education that would enable subordinate classes to perceive social injustices critically.

—Paulo Freire

Surely knowledge of the natural world, knowledge of the human condition, knowledge of the nature and dynamics of society, knowledge of the past so that one may use it in experiencing the present and aspiring to the future—all of these, it would seem reasonable to suppose, are essential to an educated man. To these must be added another—knowledge of the products of our artistic heritage that mark the history of our aesthetic wonder and delight.

--Jerome S. Bruner

The Science of Government it is my Duty to study, more than all other Sciences: the Art of legislation and Administration and Negotiation, ought to take Place, indeed to exclude in a manner all other Arts.—I must study Politicks and War that my sons may have liberty to study Mathematicks and Philosophy. My sons ought to study Mathematicks and Philosophy, Geography, natural History, Naval Architecture, navigation, Commerce and Agriculture, in order to give their Children a right to study Painting, Poetry, Musick, Architecture, Statuary, Tapestry and Porcelaine.

--John Adams

One test of the correctness of educational procedure is the happiness of the child.

--Maria Montessori

Some countries where the school systems are held up as models for our schools have been going in the opposite direction of the U.S., giving less homework and implementing narrower curricula built to encourage deeper understanding rather than broader coverage.

--Karl Taro Greenfeld

In all education the main cause of failure is staleness.

—Alfred North
Whitehead

I will say little of the importance of a good education; nor will I stop to prove that the current one is bad. Countless others have done so before me, and I do not like to fill a book with things everybody knows. I will note that for the longest time there has been nothing but a cry against the established practice without anyone taking it upon himself to propose a better one. The literature and the learning of our age tend much more to destruction than to edification.

— Jean-Jacques
Rousseau

Curriculum, examinations, commencement, degrees are all part of the same system; they are all inherited from the Middle Ages, and in some form they go back to the twelfth century.

--Charles Homer Haskins

Schools are structured in a manner that allows us to deliver a wealth of information and ideas to young people who lack our experience of and sophistication about the world. For the most part, educators assume that, if we cover something, the students have learned it. We talk, they listen. We present, they absorb. At the end of a year, when we have covered everything according to our plan, the students are deemed ready for the next level—at least most of them are. In some cases, students who do not make progress are subjected to another year of the same material, usually presented in the same way, usually with the same books, and often with the same teachers. Then, if they fail for a second time, we usually move them ahead anyway, because keeping them back at this point makes even less sense.

—Ted Sizer

Thinking is a most important and most neglected art. One of the criticisms I would suggest against our present system of education is the lack of training in the art of thinking.

--David Sarnoff

All human beings think. However, with training and coaching, they can learn to think with grace and style and agility.

--Art Costa

For those children who do not have prerequisite thinking skills, you need to have a special, systematic, organized program for teaching them.

--Reuven Feuerstein

Teach children what to think and you limit them to your ideas. Teach children how to think and their ideas are unlimited.

—Sandra Parks

The aim of education is precisely to develop intelligence of this independent and effective type—a disciplined mind.

—John Dewey

We state emphatically that, upon its intellectual side, education consists in the formation of wide-awake, careful, thorough habits of thinking.

—John Dewey

We will be able to achieve a just and prosperous society only when our schools ensure that everyone commands enough shared knowledge to be able to communicate effectively with everyone else.

--E. D. Hirsch

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

--Richard Kostelanetz

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

There's only one valid measure of the high school curriculum: How well does it prepare students for their adult lives?

—Grant Wiggins

We should do away with most course requirements, make all courses rigorous, and simply report what students have accomplished from year to year. Students should prepare for adult life by studying subjects that suit their talents, passions, and aspirations as well as needs. They should leave when they are judged to be ready for whatever next challenge they take on—whether it be college, trade school, the military, or playing in a band. Let's therefore abolish the diploma, if by diploma we mean that all students must graduate as though they were heading for the same 20th-century future.

—Grant Wiggins

As vigorous health and its accompanying high spirits are larger elements of happiness than any other things whatever, then teaching how to maintain them is a teaching that yields in moment to no other whatever. ...Strange that the assertion should need making! Stranger still that it should need defending! Yet are there not a few by whom such a proposition will be received with something approaching to derision. Men who would blush if caught saying Iphigénia instead of Iphigenía ... show not the slightest shame in confessing that they do not know where the Eustachian tubes are, what are the actions of the spinal cord, what is the normal rate of pulsation, or how the lungs are inflated. ... So overwhelming is the influence of

established routine! So terribly in our education does the ornamental over-ride the useful!...If by some strange chance not a vestige of us descended to the remote future save a pile of our schoolbooks or some college examination papers, we may imagine how puzzled an antiquary of the period would be on finding in them no sign that the learners were ever likely to be parents. ‘This must have been the curriculum for their celibates,’ we may fancy him concluding.

—Herbert Spencer (1861)

We are on the verge of requiring every student in the United States to learn two years of algebra that they will likely never use, but no one is required to learn well-ness or parenting. The current standards movement, for all its good intentions, is perilously narrowing our definition of education, to the great harm of not only students but also entire fields of study: the arts, the technical arts and trades, and the social sciences. Gone are excellent vocational programs....Threatened are visual arts, theater, music, and dance programs despite their obvious value. Indeed, there are more musicians in this country than mathematicians, but you would never know it from the work of standards committees.

—Grant Wiggins

When I did a workshop as part of a standards-writing project in a large eastern state, I mentioned the problem of arcane elements in the history standards, in particular a mention of an obscure Chinese dynasty. A gentleman cried out, ‘But that was my dissertation topic, and it is important for students to know!’ Worse: The speaker was the social studies coordinator for the state and had made sure to put this topic in the previous version of the standards.

—Grant Wiggins

If we consider future usefulness in a changing world as the key criterion, the following subjects represent...plausible candidates for key high school courses in the 21st century...:

Philosophy, including critical thinking and ethics.

Psychology, with special emphasis on mental health, child development, and family relations.

Economics and business, with an emphasis on market forces, entrepreneurship, saving, borrowing and investing, and business start-ups.

Woodworking or its equivalent; you should have to make something to graduate.

Mathematics, focusing primarily on probability and statistics and math modeling.

Language arts, with a major focus on oral proficiency (as well as the reading and writing of nonfiction).

Multimedia, including game and web design.

Science: human biology, anatomy, physiology (health-related content), and earth science (ecology).

Civics, with an emphasis on civic action and how a bill really becomes law; lobbying. Modern U.S. and world history, taught backward chronologically from the most pressing current issues.

—Grant Wiggins

Students today spend months learning the test. Teachers hate it, the schools hate it, but they are forced to do it. Did you hear that often? Oh sure. It's very real. Students are taking up to 25 percent of class time preparing for tests, And there are all these extra benchmark tests that kids take—field tests and practice tests. I would estimate that almost three years out of school lifetime is spent on taking these tests. Clearly it distorts the curriculum. We have evidence that it causes teachers to spend far more time on the tested subjects because they want the kids to do well. it's a very difficult balancing act for teachers to try to promote deeper learning and creativity when students are mandated to perform well on these narrow measurements.

—Anya Kamenetz

Knowledge should be applicable to the real world. Book knowledge that cannot be applied to everyday life is meaningless, easily forgotten, and does not help the learner participate productively in society. The school must resist the teaching of theory that cannot be applied to practice; good theory means that it can be applied to practice.

—Allan C. Ornstein

Student evaluation is basic to student growth. It demands careful, thoughtful attention. Yet what typically passes for student evaluation, what fills the public discourse, is an overarching model of assessment, built around a host of standardized tests, that doesn't get particularly close to student learning and doesn't provide teachers with much information of consequence. It is in most settings a wasteful effort that guarantees too many students a limited education and does little to increase public confidence in the schools.

In many schools, teaching to the test has become a significant part of the curriculum. And though the test facsimiles and tricks that such a process comprises may raise test scores, they are hardly the grist for an empowering education. Rising test scores are no longer matters for public celebration because they are not matched by widespread demonstrations of real competence.

—Vito Perrone

Because of the standardized test, I have found that my creativity and flexibility as a teacher have been greatly reduced. I spend a great deal of time zeroing in on skills that I know are on the test This leaves only a bare minimum of opportunity to explore writing and enrichment reading. In reviewing the test I find that what I am

going over is the same thing that teachers in one grade lower and one grade higher are covering as well This makes for a very redundant curriculum. Also, the skills we emphasize before the tests do not help them perform better on a day-to-day basis.

—N. S. Haas, T. M.
Haladyna, and
S. B. Nolen

When Dewey's monograph *Experience and Education* was published in 1938, the world was in the throes of a grueling, persistent depression and the U.S. education system was in flux because of competing visions about the purpose and conduct of school. The traditionalists favored an authoritarian structure that emphasized rote memorization, and the progressives advocated few barriers and the free flow of ideas. Dewey sought to bridge these positions by establishing a multidimensional philosophy of education that was grounded in the learning environment and human nature. In other words, he advocated educating the whole student .He identified three fundamental aspects of curriculum to achieve this end: the development of intelligence, the acquisition of socially useful skills, and the healthy growth of the individual.

—Daniel W. Stuckart and
Jeffrey Glanz

Those who promote ability grouping, special education, gifted programs, and the myriad other homogeneous instructional groups in schools claim that these classifications are objective and color blind, rather than, as Goodlad suggests, reflecting myths and prejudices. Advocates of grouping explain the disproportionate classification of white students as gifted or advanced and of students of color as slow or basic as the unfortunate consequence of different backgrounds and abilities. They base their claims of objectivity on century-old (and older) explanations of differences that are neither scientific nor bias-free.

Both students and adults mistake labels such as 'gifted,' 'honors student,' 'average,' 'remedial,' 'LD' and 'MMR' for certification of overall ability or worth. These labels teach students that if the school does not identify them as capable in earlier grades, they should not expect to do well later. Everyone without the 'gifted' label has the de facto label of 'not gifted.' The resource classroom is a low status place and students who go there are low status students. The result of all this is that most students have needlessly low self-concepts and schools have low expectations. Few students or teachers can defy those identities and expectations. These labeling effects permeate the entire school and social culture.

—Jeannie Oakes and
Martin Lipton

Testing is not a substitute for curriculum and instruction. Good education cannot be achieved by a strategy of testing children, shaming educators, and closing schools.

—Diane Ravitch

[Math] curriculum is obsessed with jargon and nomenclature seemingly for no other purpose than to provide teachers with something to test the students on.

—Paul Lockhart

We should train ourselves not to ask ‘How intelligent he/she is?’ but ‘Which intelligence does he/she have most of?’

—Charles Handy

I have not seen that standardised tests make the profession less attractive, though some principals respond to them in a way that drives the best teachers out of their schools (by over-emphasising test prep in the school curriculum for example). On the other hand, great teachers want benchmarks to measure progress and tests can help with that.

—Wendy Kopp

I do believe that when your child does poorly on a test, your first step should not necessarily be to attack the teacher or the school’s curriculum. It should be to look at the idea that, maybe, the child didn’t work hard enough.

—Amy Chua

Tests determine which classes students will take, which schools they can attend, and even which level of academic potential they are expected to achieve. Standardized tests influence, where they do not dictate, decisions about institutional goals, teacher performance, and program funding. Not surprisingly, these measures drive the curriculums in our schools and dominate instruction in the classroom.

—B. R. Gifford

In some schools, tracking begins with kindergarten screening. IQ and early achievement tests designed to measure so-called ‘ability’ determine track placement in the elementary years, thus setting in place an educational trajectory for 12 years of schooling.

—Carol Corbett Burris
and Delia T.
Garrity

Studies have identified a significant 'skills gap' between what students are currently being taught and the skills employers are seeking in today's global economy. Our children must be better prepared than they are now to meet the future challenges of our ever-changing world.

—Stephen Covey

As educators, we are only as effective as what we know. If we have no working knowledge of what students studied in previous years, how can we build on their learning? If we have no insight into the curriculum in later grades, how can we prepare learners for future classes?

—Heidi Hayes Jacobs

It goes against the grain of modern education to teach students to program. What fun is there to making plans, acquiring discipline, organizing thoughts, devoting attention to detail, and learning to be self critical?

—Alan Perlis

I think students should know something about religion as a historical phenomenon, in the same way that they should know something about socialism and humanism and the other great ideas that have shaped political philosophies and therefore the course of human events.

—Steven Pinker

Too often, teachers assume that they are introducing a book or concept to students for the first time. In fact, many units are repeated over the course of a student's K-12 experience.

—Heidi Hayes Jacobs

Leaders in China and India realize that science and technology lead to success and wealth. But many countries in the West graduate students into the unemployment line by teaching skills that were necessary to live in 1950.

—Michio Kaku

With Michigan's economic future on the line, we can't afford to have our 500 local school districts marching in different directions. Instead, we need a high standards, mandatory curriculum to get all our students on the road to higher education and a good paying job.

—Jennifer Granholm

Not only are most of our citizens fathomlessly ignorant of the glories of American literature, a fast-growing percentage of our students are no longer taught much about any works of American art, be they novels, paintings, symphonies or ballets.

—Terry Teachout

Ideally, what should be said to every child, repeatedly, throughout his or her school life is something like this: ‘You are in the process of being indoctrinated. We have not yet evolved a system of education that is not a system of indoctrination. We are sorry, but it is the best we can do. What you are being taught here is an amalgam of current prejudice and the choices of this particular culture. The slightest look at history will show how impermanent these must be. You are being taught by people who have been able to accommodate themselves to a regime of thought laid down by their predecessors. It is a self-perpetuating system. Those of you who are more robust and individual than others will be encouraged to leave and find ways of educating yourself — educating your own judgements. Those that stay must remember, always, and all the time, that they are being moulded and patterned to fit into the narrow and particular needs of this particular society.’

—Doris Lessing

What grinds me the most is we’re sending kids out into the world who don’t know how to balance a checkbook, don’t know how to apply for a loan, don’t even know how to properly fill out a job application, but because they know the quadratic formula we consider them prepared for the world.

With that said, I’ll admit even I can see how looking at the equation $x - 3 = 19$ and knowing $x = 22$ can be useful. I’ll even say knowing $x = 7$ and $y = 8$ in a problem like $9x - 6y = 15$ can be helpful. But seriously, do we all need to know how to simplify $(x-3)(x-3i)$??

And the joke is, no one can continue their education unless they do. A student living in California cannot get into a four-year college unless they pass Algebra 2 in high school. A future psychologist can’t become a psychologist, a future lawyer can’t become a lawyer, and I can’t become a journalist unless each of us has a basic understanding of engineering.

Of course, engineers and scientists use this shit all the time, and I applaud them! But they don’t take years of theater arts appreciation courses, because a scientist or an engineer doesn’t need to know that ‘The Phantom of the Opera’ was the longest-running Broadway musical of all time.

Get my point?

—Chris Colfer

At school, our reading text was called *Fun with Dick and Jane*. By comparison, Seuss’ characters were having loads more fun.

—Jack Hamann

If it were customary to send little girls to school and teach them the same subjects as are taught to boys, they would learn just as fully and would understand the subtleties of all arts and sciences.

—Christine de Pizan

I can't believe I spent 13 years at school and never got taught cooking, gardening, conversation, massage, Latin, or philosophy. What were they thinking? That I would somehow live off inorganic chemistry?

—Neel Burton

Public education's critics fantasize about the 'good old days' when schools allegedly taught only reading, writing, and arithmetic. But until families and communities are able or willing to again assume their traditional responsibilities, public schools will continue to feed students, check their hearing, vision, and teeth, instruct them in hygiene and nutrition, carry the main burdens of integrating neighborhoods and providing recreation, teach safe driving habits, prevent the abuse of drugs and alcohol, counsel the upset, encourage the listless, search for the absent, provide for the uninterested, motivate the lazy, and challenge the gifted.

—Dr. Matthew Prophet

No one who examines classroom life carefully can fail to be astounded by the proportion of the students' time that is taken up just in waiting.

--Charles E. Silberman

There is one blanket statement which can be safely made about the world's schools: the teachers talk too much.

--Martin Mayer

Make the school fit the child—instead of making the child fit the school.

—A. S. Neill

In a traditional classroom, the spread between the fastest and slowest students grows over time, [and so] putting them all in one class cohort eventually makes it exceedingly difficult to avoid either completely boring the fast students or completely losing the slow ones. Most school systems address this by... putting the 'fastest' students in 'advanced' or 'gifted' class... and the slowest students into 'remedial' classes. It seems logical... except for the fact that it creates a somewhat permanent intellectual and social division between students.

—Salman Khan

They teach in academies far too many things, and far too much that is useless.
—Goethe

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

There's no such thing as a kid who hates reading. There are kids who love reading, and kids who are reading the wrong books.
—James Patterson

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

There are two kinds of books in the world--the boring kind they make you read in school and the interesting kind that they won't let you read in school because then they would have to talk about real stuff like sex and divorce and is there a God and if there isn't then what happens when you die, and how come the history books have so many lies in them.
—LouAnne Johnson

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

They're teaching Cuckoo because it's easy. You have to teach what is hard, but teachers don't want to....Let's face it...if you don't learn Shakespeare in high school, you'll probably never get a hit at it.
--Ken Kesey

I have often wondered about two things. First, why high school kids almost invariably hate the books they are assigned to read by their English teachers; and second, why English teachers almost invariably hate the books students read in their spare time. Something seems very wrong with such a situation. There is a bridge out here, and the ferry service is uncertain at best.
--Stephen King

English teachers and their students must have freedom to read and see and think and discuss and learn if there is any hope of reality entering the classroom. Where censors grant teacher 'limited' freedom as long as students read only 'wholesome' books and 'uplifting' magazines about 'good' Americans and 'happy' things, view only 'suitable' and 'clean' and 'Christian' films, create only 'optimistic' and 'positive' and 'inspirational' media materials, and discuss only 'noncontroversial' and 'safe' topics, there is no possibility of education and the search for truth, only the indoctrination into the community's contemporary mores.

—Kenneth L. Donelson

...we're in English class, which for most of us is an excruciating exercise in staying awake through the great classics of literature. These works—groundbreaking, incendiary, timeless—have been pureed by the curriculum monsters into a digestible pabulum of themes and factoids we can spew back on a test. Scoring well on tests is the sort of happy thing that gets the school district the greenbacks they crave. Understanding and appreciating the material are secondary.

—Libba Bray

I remember thinking that people were crazy for reading the same book more than once, but I now have a new-found appreciation for the re-discovery of literature. The lessons we learned from books in the school curriculum are reinvented and updated when we read as adults.

—Rachel Nichols

It's an absurd error to put modern English literature in the curriculum. You should read contemporary literature for pleasure or not at all. You shouldn't be taught to monkey with it.

—Rebecca West

Poetry has the potential to bridge the gap between learning and life. One advantage is its length. Because most poems are fairly short, they are not as intimidating to the average reader as a typical middle school novel. Another advantage is that poetry is powerful. Within the lines of a well-constructed poem is a world of meaning and metaphor that connects print to life. It is precisely this connection that holds appeal for the adolescent learner who is on a perpetual journey of self-exploration.

—Janet A. Finke &
Karen D. Wood

To encourage literature and the arts is a duty which every good citizen owes to his country.

—George Washington

Science fiction is held in low regard as a branch of literature, and perhaps it deserves this critical contempt. But if we view it as a kind of sociology of the future, rather than as literature, science fiction has immense value as a mind-stretching force for the creation of the habit of anticipation. Our children should be studying Arthur C. Clarke, William Tenn, Robert Heinlein, Ray Bradbury and Robert Sheckley, not because these writers can tell them about rocket ships and time machines but, more important, because they can lead young minds through an imaginative exploration of the jungle of political, social, psychological, and ethical issues that will confront these children as adults.

— Alvin Toffler

It worries me that undergrads and high school students are forced into books they aren't ready for, like Faulkner's, and then they are afraid of putting their toes in the water again.

—Alice McDermott

It's certainly no secret that American students are taught less and less about the canonical literary masterpieces of the past, and there is no shortage of people who believe that what little they're required to learn in school is still too much.

—Terry Teachout

In school we learn one of the most amazing and difficult feats man has ever accomplished—how to read—and at the same time we learn to hate to read the things worth reading most.

--Steve Allen

In all reading instruction the first aim should be to produce children who want to read and who do read; the second aim should be to help them to read effectively. If the second aim is given priority, it is probable that the first aim will never be achieved.

--Carl Anderson

What we require of a child's reading, at any level above that of keeping him quiet, is that it should stretch his imagination, extend his experience, give him some new awareness of people and the world around him.

--John Rowe Townsend

I think they assign things to students which are way over their heads, which destroy your love of reading, rather than leading you to it. I don't understand that.

—Charles M. Schulz

Startling as this may sound, the truth is that many children read for a remarkably small percentage of the school day...children sometimes spend two and a half hours a day in reading instruction and only ten minutes of that time actually reading.

--Lucy McCormick
Calkins

What do teachers and curriculum directors mean by 'value' reading? A look at the practice of most schools suggests that when a school 'values' reading what it really means is that the school intensely focuses on raising state-mandated reading test scores- the kind of reading our students will rarely, if ever, do in adulthood.

—Kelly Gallagher

I think poetry can help children deal with the other subjects in the curriculum by enabling them to see a subject in a new way.

—Carol Ann Duffy

How odd...that our current [high school] requirements do not include oral proficiency when all graduates will need this ability in their personal, civic, social, and professional lives.

—Grant Wiggins

It is as unforgivable to let a student graduate without knowing how to use a computer as it was in the past to let him graduate without knowing how to use a library.

--John Kennedy

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

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

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*

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

The technological gap between the school environment and the 'real world' is growing so wide, so fast that the classroom experience is on the way to becoming not merely unproductive but increasingly irrelevant to normal human existence.

--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

We are at a point in the history of education when radical change is possible, and the possibility for that change is directly tied to the impact of the computer.

--Seymour Papert

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

—Todd Strasser

I think kids should learn programming not to be computer scientists but to be better problem solvers.

--Vint Cerf

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

The potential of the new technologies of Information and Communication should lead one to rethinking the role and functioning of schooling and schools in general...their content, their focus, their purpose, and their values. The technology will be very important, but primarily because it should force us to DO NEW THINGS rather than because it will enable us to do old things better.

--Peter Drucker

In education, technology can be a life-changer, a game changer, for kids who are both in school and out of school. Technology can bring textbooks to life. The Internet can connect students to their peers in other parts of the world. It can bridge the quality gaps.

—Queen Rania of Jordan

Any tendency to consider music a luxury is dangerous. This patently false idea leads to devaluing music in general education, often to the point of eliminating it entirely when budgets are tight.

--Frederick Lieberman

If we are to hope for a society of culturally literate people, music must be a vital part of our children's education.

—Yo-Yo Ma

Creative rhythmic movement has a unique and vital place in today's schools. The potential...is unlimited...to help children feel good about themselves, find zest and excitement in learning and relate to others in meaningful ways.

--Robert S. Fleming

The arts humanize the curriculum while affirming the interconnectedness of all forms of knowing. They are a powerful means to improve general education.

--Charles Fowler

Schools that do not teach the arts are, quite literally, creating a generation that is less civilized than it could be, more barbaric than it should be.

--Charles Fowler

The arts provide a more comprehensive and insightful education because they invite students to explore the emotional, intuitive, and irrational aspects of life that science is hard pressed to explain.

--Charles Fowler

The experience of dealing with the arts is necessary for younger children. For most of them, producing art is their introduction to the idea of work. They start learning the discipline that they will need to achieve their goals. They learn what powerful satisfaction work can provide. They learn to explore, and they experience success. These are the impulses a human being needs most if he is to work hard and happily in life, and no children's activity is better than art at instilling these attitudes.

--Leonard Garmet

Art is not an ornament in our lives anymore than education is. Both need to be woven into the total experience of a full life. If we look closely, we'll see that art is education. Painting and sculpture and crafts educate our visual and tactile senses; music and drama teach us to listen and to reflect on the world around us. The arts sharpen our senses and teach us how to absorb information more quickly and on different levels. In today's complex world, we need to teach our children how to master a multitude of inter-related facts.

--Joan Mondale

Every high school should have a mandatory class called 'Life' which teaches you how to: sew, change a tire/oil, do taxes, basic first aid, basic cooking etc. Basic things that you need in real life.

—Internet Meme

Engineering is quite different from science. Scientists try to understand nature. Engineers try to make things that do not exist in nature. Engineers stress invention. To embody an invention the engineer must put his idea in concrete terms, and design something that people can use. That something can be a device, a gadget, a material, a method, a computing program, an innovative experiment, a new solution to a problem, or an improvement on what is existing. Since a design has to be concrete, it must have its geometry, dimensions, and characteristic numbers. Almost all engineers working on new designs find that they do not have all the needed information. Most often, they are limited by insufficient scientific knowledge. Thus they study mathematics, physics, chemistry, biology and mechanics. Often they have to add to the sciences relevant to their profession. Thus engineering sciences are born.

—Yuan-Cheng ('Bert')
Fung

I believe very strongly, and have fought since many years ago - at least over 30 years ago - to get architecture not just within schools, but architecture talked about under history, geography, science, technology, art.

—Richard Rogers

That we have not made any respectable attempt to meet the special educational needs of women is the clearest possible evidence that our educational objectives have been based on the vocational patterns of men.

--Betty Friedan

AFTER SCHOOL SPECIAL

Dear Mr. Schneider,
I attended your elementary
School almost thirty years ago
And I'm very sure that
You will remember
Me.

My name is Suzy.
I'm that hyperactive girl
From the Egyptian family
Who used to always play dead
On the playground during
Recess.

You used to keep me
After school a lot,
And then my father would
Force me to make the long
Walk home in the cold or rain.
Sometimes I would arrive
After dark.

I'm writing to tell you
That I was bored as a kid.
I was bored by your curriculum
And the way I was always taught a
Bunch of useless
Junk.

I did not like being locked up
In a prison of scheduled time
Learning about irrelevant material,
And watching belittling cartoons and
Shows approved by academia that
Made me even more
Bored.

As a kid
Who was constantly
Growing, evolving, and
Being shaped by all around me,
I wanted to travel,
See other kids
In the world like me,
To understand what was going
On amongst us and around us,
To know what we were here for
And what was our real purpose
For existence.

I have some questions
I would like to ask you, Mr. Schneider,
Now that I know that you are no
Longer a school principal,
But the new superintendent
Of the entire school
District.

I want to know
Why racism today
Was not clearly explained to me
Even though we covered events
That happened long ago.
I want to know why you
Never shared with us
Why other countries
Never liked us,
Why we are taught to compete,

To be divided in teams,
And why conformity is associated
With popularity, while
Eccentricity is considered
Undesirable?

I want to know
Why my cafeteria lunches
Were slammed packed
With bottom-tier
Processed junk food
Only suitable
For pigs?
And why is it
That whenever a bully
Slammed a kid into a locker for
His lunch money,
Nobody explained to us
That egotism, selfishness and greed
Were the seeds of
War?

I want to know
Why we were never taught
To stick up for each other,
To love one another, and that
Segregation sorted by the
Occupations of our fathers,
The neighborhoods we lived in, our houses,
Choices of sport, wealth, clothing,
Color of our skin
And the texture of our hair
Should never, ever
Divide us?

And lastly,
I want to know why
Is it that whenever I pledged
Allegiance to the flag,
I was never told that I was

Actually hailing to the
Chief?

You used to say that
I was a troubled child,
A misfit, and that I needed
Obedience training,
But you never acknowledged that
I was the fastest runner in the district
And that I took the school
To State and Nationals to compete
In the Spelling Bee among kids
Grades higher than me.
And that it was me,
Who won that big trophy
That sat in your office when you
Used to detain me for hours
And tell me I was no
Good.

Mr. Schneider,
If we are not taught truths as kids,
Then how do you expect us to
Grow up to be truthful citizens?
If we are only being taught the written way,
And it has not shown positive effects
In societies of yesterday or today,
Then how can we progress as a
United and compassionate
Nation?
What good is it,
To memorize the histories
Of our forefathers,
Without learning what could be
Gained from their lessons and mistakes
To improve our future
Tomorrows?

And finally,
I want to thank you;

For I know you have a tough job
Dealing with rebellious children like me.
Your job of mass processing and boxing
The young minds of America has not been an easy one,
And I congratulate you
On your recent promotion.
But I sincerely want to thank you,
Thank you,
And thank you,
For always pointing out
That I was
Different.

—Suzy Kassem

How come we are not taught in school when to do our taxes, or how, or why, or even
what taxes are, but if we get it wrong we go to jail?

—Ged Backland

The financial meltdown of recent years underscores a related point [for high school]:
Understanding our economic system is far more important than learning textbook
chemistry.

—Grant Wiggins

Our woeful ignorance and lack of curiosity about the world beyond our borders
amount almost to a national character flaw. Part of the reason is the short shrift
given by our schools to geography.

--Alex Shoumatoff

I'm somewhat horrified because I don't think the young people today even know
what history is. Some of them don't even study History at school anymore or
Geography and they don't know where one place is from another.

—Joan Sutherland

As long as high schools strive to list the number of Ivy League schools their gradu-
ates attend and teachers pile on work without being trained to identify stress-relat-
ed 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 doctor of the year 2014 will work shoulder to shoulder with the teacher. He will see to it that education shall train and develop the whole child, instead of just the expanded bulb at the top of him, leaving the rest of him to shift for itself in the intervals that remain. The new medicine will make schooling a thing of the open air instead of stuffy rooms, of fields and gardens instead of printed pages, of deeds instead of words.... Perhaps by 2014 teachers may recognize that it is as important for a child to correctly bound and describe his liver as the countries of Europe, or the States of the Union, and to know at least as much of his own interior as he does of that of Hindustan. Education for life will include a sound, working knowledge of the body machine that he has to live and work with; of what food fuels will best and most economically supply it with energy; how its bearings are to be watched and its gears regulated; and how to make roadside repairs.

—Woods Hutchinson
(1914)

‘Do you think you can maintain discipline?’ asked the Superintendent.
‘Of course I can,’ replied Stuart. ‘I’ll make the work interesting and the discipline will take care of itself.’

--E. B. White

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

No use to shout at them to pay attention. If the situations, the materials, the problems before the child do not interest him, his attention will slip off to what does interest him, and no amount of exhortation or threats will bring it back.

—John Holt

I think if you cheat in an ethics class then there’s really no hope for you.

—Joe Hill

How sad that physics is viewed as more important than psychology and human development [in high school], as parents struggle to raise children wisely and families work hard to understand one another.

—Grant Wiggins

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

What motivates kids to go to class? Strong relationships with teachers and coursework they see as relevant and important for the future. That's what the students themselves said, and what every classroom teacher and curriculum expert needs to understand.

—Richard Laurent

With good curriculum alignment, teachers have more time to focus a lesson, make the content more engaging, and tie it to assessments, so that students are more likely to pass the tests. If alignment is working, then students are more successful academically and less likely to be discouraged and drop out. Efforts to keep students engaged are not limited to the classroom. Motivating students through extracurricular activities can help them see school as a positive social experience. Encourage all students, especially beginning in middle school, to get involved in at least one extracurricular activity.

—Rick Allen

My request is: Help your students to become human. Your efforts should never produce learned monsters, skilled psychopaths and educated Eichmanns. Reading, writing and arithmetic are important only if they serve to make our children more humane.

--Haim G. Ginott

We increasingly treat education as if its primary goal were to teach students to be economically productive rather than to think critically and become knowledgeable and empathetic citizens. This shortsighted focus on profitable skills has eroded our ability to criticize authority, reduced our sympathy with the marginalized and different, and damaged our competence to deal with complex global problems. The loss of these basic capacities jeopardizes the health of democracies and the hope of a decent world.

—Martha Nussbaum

You must resist efforts to reduce education to a tool of the gross national product. Rather, work to reconnect education to the humanities in order to give students the capacity to be true democratic citizens of their countries and the world.

—Martha Nussbaum

Public education is of key importance in educating young people to understand the realities of the world they will inherit, and to change it, not for the sake of change, but because we will not survive without change.

--Eve Olve

Republics, one after another...have perished from a want of intelligence and virtue in the masses of the people....If we do not prepare children to become good citizens; if we do not develop their capacities, if we do not enrich their minds with knowledge, imbue their hearts with love of truth and duty, and a reverence for all things sacred and holy, then our republic must go down to destruction, as others have gone before it; and mankind must sweep through another vast cycle of sin and suffering, before the dawn of a better era can arise upon the world.

--Horace Mann

We must shift the focus of our classrooms from obedience to understanding.

—Robert John Meehan

Where I grew up, learning was a collective activity. But when I got to school and tried to share learning with other students that was called cheating. The curriculum sent the clear message to me that learning was a highly individualistic, almost secretive, endeavor. My working class experience...was disparaged.

—Henry Giroux

By 2018 there will be more than two million open jobs in STEM (science, technology, engineering, math) professions, but only 19 percent of current college degrees are in STEM fields. Even worse, 75 percent of students that do well in science and math decide to not pursue STEM in college. If we want to remain a global leader, we have to develop more interest in these topics. One way to do that is to show students that coding ties into nearly everything we do. And to do that, we need to incorporate programming into the curriculum.

—Ellen Ullman

Change the food in the schools and we can influence how children think. Change the curriculum and teach them how to garden and how to cook and we can show that growing food and cooking and eating together give lasting richness, meaning, and beauty to our lives.

—Alice Waters

The great danger in public education today is that we have failed to see the difference between knowledge and wisdom. We train the head and let the heart run hog-wild. We allow culture and character to walk miles apart, stuffing the head with mathematics and languages—leaving manners and morals out of the picture.

--Theodore H. Palmquist

Our mission is to teach students not only how to walk, but also where to walk.

--Unknown

Nowadays it seems that moral education is no longer considered necessary. Attention is wholly centered on intelligence, while the heart of life is ignored.

--George Sand

The only things worth our knowing are those that teach us to live good lives.

--Jean Jacques Rousseau

Much of life is a moral and spiritual journey, and it makes no sense to send young people forth on such a journey having offered them only some timid, vacillating opinions about proper conduct. We must give our children better equipment than that. We must offer them unequivocal, reliable standards of right and wrong, noble and base, just and unjust. We must treat life as a moral endeavor.

--William J. Bennett

SUMMING UP THE CASE FOR VALUES EDUCATION:

1. There is a clear and urgent need.
2. Transmitting values is and always has been the work of civilization.
3. The school's role as moral educator becomes even more vital at a time when millions of children get little moral teaching from their parents and where value-centered influences such as church or temple are also absent from their lives.
4. There is common ethical ground even in our value-conflicted society.
5. Democracies have a special need for moral education, because democracy is government by the people themselves.
6. There is no such thing as value-free education.
7. The great questions facing both the individual person and the human race are moral questions.
8. There is broad-based, growing support for values education in the schools.
9. An unabashed commitment to moral education is essential if we are to attract and keep good teachers.

--Thomas Lickona

The best and deepest moral training is that which one gets by having to enter into proper relations with others....Present educational systems, so far as they destroy or neglect this unity, render it difficult or impossible to get any genuine, regular moral training.

--John Dewey

For the young are not able to distinguish what is and what is not allegory, but whatever opinions are taken into the mind at that age are wont to prove indelible and unalterable. For which reason, maybe, we should do our utmost that the first stories that they hear should be so composed as to bring the fairest lessons of virtue to their ears.

--Plato

If we want to educate a person in virtue we must polish him at a tender age. And if someone is to advance toward wisdom he must be opened up for it in the first years of his life when his industriousness is still burning, his mind is malleable, and his memory still strong.

--Comenius

The aim of education is the knowledge not of fact, but of values.

—William Ralph Inge

Teaching kids to count is fine, but teaching them what counts is best.

—Bob Talbert

Education without values, as useful as it is, seems rather to make man a more clever devil.

—C. S. Lewis

How unfortunate for us personally, professionally, and socially that all high school and college students are not required to study ethics.

—Grant Wiggins

Since belief determines behavior, doesn't it make sense that we should be teaching ethical, moral values in every home and in every school in America?

—Zig Ziglar

One goes through school...learning little or nothing about goodness but a good deal about success.

--Ashley Montagu

Industrial Arts' major innovation was in the form of curriculum. It still taught manipulative skills, but it required its students to ask questions and problem solve and to investigate matters of industrial business. Industry helped solidify the new concept with its demands. Students needed to have knowledge in the new technology of that era. The major change in curriculum was that it offered social involvement. As the nation grew, so must the student understand what was fueling that growth so

that they have the ability to contribute to the source of revenue. The vehicle used to complete this requirement was through an expanding education for the students. This included such topics as, but not limited to, Electricity, Transportation, Plastics, Textiles, and Construction. The collective effort of Agriculture, Industry, and Education helped build the foundation for what we knew as 'Industrial Arts.' In other words, the student needed skills that made them marketable. Consequently, the student needs to understand that social technology is ever changing. Industrial Arts curriculum could be summed up by the following quote credited to Frederick G. Bonser and Lois Coffey Mossman in 1923, 'Industrial Arts is a study of the changes made by man in the form of materials to increase their value, and of the problems of life related to these changes.'

—Christian Misner

I think one of the worst things schools have done is taken out all of the stuff like art, music, woodworking, sewing, cooking, welding, auto-shop. All these things you can turn into careers. How can you get interested in these careers if you don't try them on a little bit?

—Temple Grandin

'Student activities' have been called by many names over the years, and while the definition of 'curriculum' historically has caused much debate, the appropriate title recognizing student activities lacks universal acceptance. The term, 'extra-curricular activities,' an old term, gives the impression that they are outside the curriculum, but...student activities are recognized as a major part of the total school program.

The 'Third Curriculum'— first termed by Robert W. Frederick — seems to be the best title, as it infers two additional curricula. The first is the coursework required to earn a high school diploma. The second curriculum allows for school choice, exploration, and specialization that include the electives that our students study to prepare for post-secondary study or work. Student activities represent a wide variety of school sponsored teams, clubs, and organizations. Research reveals that it is in these activities that students learn most of the carryover skills for adult life. While participating in student activities, our young adults learn critical lessons in leadership, followership, character, communications, teamwork, decision-making, self-worth, and individual potential. It is this level of learning that is called the Third Curriculum.

—Dale D. Hawley

Textbooks serve a purpose—one must learn at least the rudiments of one's craft before breaking new ground—but they can also become a crutch if we cling to them too tightly.

—Elizabeth Sims

The elimination of war should be the major task of social education.

--Konrad Lorenz

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

The ultimate end of education is happiness or a good human life, a life enriched by the possession of every kind of good, by the enjoyment of every type of satisfaction.

—Mortimer Adler

We ought for our own good to have access to nature and knowledge of it. To my mind, it is monstrous that any child should grow up without some acquaintance with nature, and above all I would say without an opportunity for intimate knowledge of some individual plants and animals.

—J. B. S. Haldane

Education has been thought of as taking place mainly within the confines of the classroom, and school buildings have been regarded as the citadels of knowledge. However, the most extensive facility imaginable for learning is our environment. It is a classroom without walls, an open university for people of all ages offering a boundless curriculum with unlimited expertise. If we can make our environment comprehensible and observable, we will have created classrooms with endless windows on the world.

--R. S. Worman

A primary object should be the education of our youth in the science of government. In a republic, what species of knowledge can be equally important? And what duty more pressing than communicating it to those who are to be the future guardians of the liberties of the country?

—George Washington

Physical education and safety go hand in hand—the one stimulating adventure and experience, the other trying to do away with the unfortunate accidents of life that frustrate adventure and bring so much pain and unhappiness.

--Herbert J. Stack

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

—Joichi Ito

We have neglected instruction on democracy. Until the 1960s, U.S. high schools commonly offered three classes to prepare students for their roles as citizens: Government, Civics (which concerned the rights and responsibilities of citizens), and Problems of Democracy (which included discussions of policy issues and current events). Today, schools are more likely to offer a single course. Civics education is falling out of favor partly as a result of changing political sentiment. Some liberals have come to see instruction in American values—such as freedom of speech and religion, and the idea of a ‘melting pot’—as reactionary. Some conservatives, meanwhile, have complained of a progressive bias in civics education.

—Erika Christakis

Some experts have noted a conspicuous link between the decline of civics education and young adults’ dismal voting rates. Civics knowledge is in an alarming state: Three quarters of Americans can’t identify the three branches of government. Public-opinion polls, meanwhile, show a new tolerance for authoritarianism, and rising levels of anti-Democratic and illiberal thinking. These views are found all over the ideological map.

—Erika Christakis

What have you read today? The newspaper? A few pages of a novel? Chances are you read a variety of literature, both for pleasure and to learn something about the world, education, or any of your other interests. In classrooms, teachers and students are discovering that literature can be a good source for content beyond reading and literacy skills.

Literature is breaking out of the language arts classroom and becoming part of instruction in science, social studies, and other subjects. Teachers are finding that literature, whether as a tool for learning content or as the foundation of the curriculum, can motivate and enrich teaching and learning. In the words of one middle school student: ‘Books make it come alive!’

—Karen Rasmussen

Students have to learn content, including geography, dates, and political contexts. But books can put a human face on historical events. That [ability] is the greatest power of integrating literature with social studies, science, math, and history.

—Joan Ruddiman

One reason to integrate literature into the content areas is because it provides access to different topics, ideas, and points of view in ways accessible to students. Textbooks tend to present issues widely and on the surface and without different viewpoints. The challenge for teachers using literature to teach content, especially with middle school students, is to move beyond ‘I like this book’ in class discussion.

For example, when students read about Nelson Mandela in reading class as they study the colonization of Africa and its effect in social studies, they can talk about books as they relate to political and cultural content. This makes discussions less personally sensitive because it's not about the kids directly. And such reading helps kids understand the global insights theme of the curriculum.

—Joan Ruddiman

English teacher Jeff Newton has one rule for his students at Spotswood High School in Rockingham County, Va. You are not allowed to read a book you do not like. Students have a hard time believing this rule, Newton says, so he keeps it posted at the front of his classroom. He insists that books read without passion are hardly worth reading at all. That is why, in Newton's classroom, paperback books of every kind—fiction, nonfiction, poetry, young adult, contemporary, the classics—offer something to interest every student. Believing that he could reach all his students with the right books, Newton persuaded his district language arts supervisor to purchase trade books instead of new literature anthologies when their textbooks were up for adoption.

Now, instead of five-pound literature books, Newton's students can choose from more than 700 paperbacks in his classroom library. 'If we want kids to be readers, let's give them real books,' he suggests. To ignite the reading passion, you start with what they will read. This doesn't mean that I don't cajole, nudge, coax, or sometimes stick their face in a book that I think will grab them, but my primary goal is to create readers so that they keep reading when they're out of school, Newton explains. Students who don't develop the pleasure-reading habit simply don't have a chance.

—Larry Mann

There is no such thing as inherent or built-in relevance; no subject is relevant in itself, because every field of knowledge is equally the center of all knowledge. Relevance is a quality which teachers and students alike bring to a subject of study, and it consists in a vision of the human possibilities connected with that subject. Some subjects, such as car-driving, are obviously and immediately usable; for those that are not, such as the arts and sciences, the question of usefulness moves from an actual into a potential world. They are useful for living a genuinely human life, but of course one can neither prove that a genuinely human life is better than other kinds, or that a certain program of study will necessarily enable one to live it. Teaching is not magic, and it would be a very impudent or self-deceived charlatan who would assert that if we only teach literature properly, certain social benefits are bound to follow. Still, a sense of the worthwhile of what he is doing is what keeps a teacher going, and surely that sense should be made as specific as possible. If he teaches science, he's trying also to teach intellectual honesty, accuracy, the importance of relying on evidence rather than authority, and the courage to face results that may be negative or unwelcome. If he teaches history, he's trying also to teach the dimension of consciousness that only the sense of continuity with the past can give, the

absence of which makes society as senile as loss of memory does the individual. If he is teaching literature, he is trying also to teach the ability to be aware of one's imaginative social vision, and so to escape the prison of unconscious social conditioning. Whatever he is teaching, he is teaching some aspects of the freedom of man.

—Northrop Frye

Adventures of Huckleberry Finn must remain in classrooms throughout the country. It is educative not only for African Americans, but for anyone sitting in an American literature survey course. Does it stand in lieu of a good, substantive American history class that addresses African American's experiences under slavery? Of course not, but it certainly rounds out that experience. This is especially true in school districts that for budgetary or other reasons do not have access to many novels by African Americans who were Twain's contemporaries. But even if the district does have a budget that allows it to purchase class sets of Francis Harper's *Iola Leroy*, for example, it is still important to include a Twain novel, especially *Adventures of Huckleberry Finn*, in the curriculum.

—Jocelyn Chadwick

Teaching done in isolation and with no relevant connection to life is forgotten about 24 hours after the words have left my lips. I now understand that when kids simply memorize information, probably as much as 85% is forgotten in three months' time. This includes vocabulary lists and grammar instruction and abstract mathematical concepts. Skills in isolation rather than application just doesn't work.

—Jeanneine P. Jones

An integrated curriculum is one which focuses on making connections within and between the subject areas. It means deliberately relating ideas rather than assuming students will automatically make the connections. It also means dissolving boundaries between subject areas by eliminating the traditional 'layer cake' philosophy of curriculum that has permeated our schools.

Numerous methods of integration, each with its own benefits have been described in the professional literature. Integrating the language arts, for example, means incorporating one or more of the communication processes of reading, writing, listening, speaking and viewing with the content areas. Another example, the thematic approach, involves assignments and instructional activities which focus on themes such as prejudice, revolution, aspirations, or friendship. Another method of integration begins with topics such as American Indians, the Roaring Twenties, folklore, adventure, dragons, or families, and applies them across subject areas.

—Karen D. Wood,
Jim Flood, and
Diane Lapp

Educators for too long have adopted the ‘chocolate box’ model of learning—putting more and more isolated chocolates of varied flavors in an attempt to expand students’ thinking. A thorough, conceptual understanding cannot be accomplished by studying subjects in isolation. Understanding means making connections across the subject areas....The benefits of using literature to link the academic disciplines are twofold: it provides for a richer, more meaningful understanding of subject matter, and it provides a relevant way to introduce students to the pleasures and rewards of reading.

—David N. Perkins

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—David N. Perkins

Is it not dangerous to have students study together for years, copying the same models and approximately the same path?

—Theodore Gericault

Our approach to education has remained largely unchanged since the Renaissance: From middle school through college, most teaching is done by an instructor lecturing to a room full of students, only some of them paying attention.

—Daphne Koller

There has been this new rash of surveys reporting that ‘kids don’t like computers’ or that schools are losing interest in them. That is a little like saying the child doesn’t like pencils; the child doesn’t like paper.

--Sherry Turkle

Drama activities can be used with great success in science, social studies, geography, math, and foreign language classes or in interdisciplinary or integrated classes. These activities provide a focus for integration of language skills with other subjects while broadening and enhancing the learning in all the disciplines:

- Monologues using historical documents, letters, journals, or excerpts from autobiographies reveal the human element in work in science math, or history.
- Creative drama scenarios encourage exploration of the complex contexts of scientific discoveries or political decisions.
- Improvisation provides a means to speculate about possible solutions to current concerns, to practice foreign language vocabulary, and to encourage creative problem-solving.
- Stories on Stage scripts dramatize scenes from young adult literature dealing with issues related to study in many disciplines (ecology, health, technology, world cultures).
- Tableaux show shapes in math, events in history, idioms or phrases in foreign language.
- Role-playing conveys the multiple perspectives involved in political or social decision-making. Interview ‘famous people,’ or involve proponents of a cause in a face-to-face meeting with opponents.

—Eleanor Albert

Drama/theatre is basic to education as an essential and integral part of a school curriculum. This art form provides students with intellectual resources (e.g. solving human problems from multiple points of view) and develops within students a capacity for creative, emotional expression. Drama/theatre contributes a richness to the quality of our lives by its representation of the human condition.

—Lee Droegemueller

I lay my eternal curse on whosoever shall now or at any time hereafter make schoolbooks of my work and make me hated as Shakespeare is hated. My plays were not designed as instruments of torture.

—George Bernard Shaw

Personally, I have no reason to lash out at our system of higher education. Yet a lifetime of experience, plus a quarter century of reading and reflection, has convinced me that it is a big waste of time and money. When politicians vow to send more Americans to college, I can't help gasping, 'Why? You want us to waste even more?'... First and foremost: From kindergarten on, students spend thousands of hours studying subjects irrelevant to the modern labor market. Why do English classes focus on literature and poetry instead of business and technical writing? Why do advanced-math classes bother with proof almost no student can follow? When will the typical student use history? Trigonometry? Art? Music? Physics? Latin? The class clown who snarks, 'What does this have to do with real life?' is onto something.

—Bryan Caplan

Each second we live is a new and unique moment of the universe, a moment that never was before and will never be again. And what do we teach our children in school? We teach them that two and two make four and that Paris is the capital of France. When will we also teach them what they are? We should say to each of them... 'Do you know what you are?' You are a marvel. You are unique. In all of the world there is no other child exactly like you. In the millions of years that have passed there has never been another child like you. And look at your body....what a wonder it is! You may become a Shakespeare, a Michelangelo, a Beethoven. You have the capacity for anything. Yes, you are a marvel. And when you grow up, can you then harm another who is, like you, a marvel? You must cherish one another. You must work; we all must work to make this world worthy of its children. The love of one's country is a natural thing. But why should love stop at the border? We are all leaves of a tree and the tree is humanity.

--Pablo Casals

Providing better computer science education in public schools to kids, and encouraging girls to participate, is the only way to rewrite stereotypes about tech and really break open the old-boys' club.

—Ryan Holmes

THE NEED FOR A COMPUTER SCIENCE REQUIREMENT

Computer Science is fundamentally concerned with the invention, application, refinement and analysis of algorithms. There are three reasons for students to learn about algorithms, algorithmic thinking, and computer software technology:

- Algorithmic thinking, the fundamental mode of thinking that underlies all of computer science, is a unique mode of thought distinct from others encountered in the arts, social sciences, mathematics and other sciences. Algorithmic thinking skills are necessary to create computer software, and valuable to everyone who uses or interacts with computer software.
- The idea of computer, over its history, has evolved from its ancient role as a counting aid (e.g. the abacus developed 7,000 years ago), to accurate, arithmetic calculator in the 17th century, to high speed, programmable, general-purpose calculating machine in the middle of the 20th century. In the second half of the 20th century computers began, for the first time, to render judgments rather than calculate results. Now, at the dawn of the 21st century, the future of the computer lies in the direction of artificial judgment: making complex decisions, providing advice, and exercising judgment.

The computer has become inexpensive and therefore ubiquitous. A typical American home contains many computers including desktop or portable ones, as well as those embedded in devices as varied as the coffee maker, microwave, television, radio, remote control, printer, scanner, fax machine, wrist watch, cell phone, kitchen timer, and camera. Reasons (1) and (2), though interesting, were not compelling reasons for all students to study algorithmic thinking, and the nature of artificial judgment, until this precise historical moment. The computer, that once cost millions of dollars, occupied a vast room, and was reserved for the exclusive use of mathematicians, physicists and engineers, is now so small and inexpensive that it pervades—even invades—nearly every aspect of our lives. Today, in modern societies, people must be able to use computers inside and outside of their work.

— Matthew A. Brenner

For the students of today to become productive and responsible citizens of tomorrow they must learn not just how to use computers, but also to understand the fundamental nature of computers and the software that controls them, for three broad reasons:

- 1) Interacting with computerized systems makes more sense to, and produces less stress in, people who understand the nature of software.
- 2) In the course of learning to create computer software, students learn abstract ideas and how to express them with extraordinary precision. They invent things entirely in their imaginations, and then manufacture them with nothing more than a keyboard and determination. They learn ideas and techniques that enable them to use the breathtaking speed of inexpensive, modern computers to amplify their own abilities and creativity to solve practical problems that cannot be solved by humans acting without them. They also develop a sense of what kinds of problems do not yield to the brute force of computers performing billions of instructions each second.
- 3) Political debate over an ever-increasing number of public policy, privacy rights, national security, and military expenditures depend on an understanding of the nature of software and algorithms to make informed decisions.

—Matthew A. Brenner

Where industrial arts once had an emphasis on the teaching of material and tool skills related to industry, technology education helps citizens become technological-ly literate and take an active role in solving societal problems. The conceptual approach used by technology education relies on the examination of technical means that humans have used throughout recorded history. These technical means may include the study of communication, energy and power, production, transportation, and bio-related technologies....Technology educators often rely on how these various technologies are often applied as a system.

—Anthony F. Gilberti

No matter who you are or what you plan to do, learn to type!

--Liz Smith

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

—Joichi Ito

While social analysis must always be part of curriculum development and teaching, education policy and practice needs to be protected against the dangers of fads, obsessions and moral panics.

—Rob Gilbert and
Pam Gilbert

Educators must provide students with an authentic view of technology....technology must model life; it cannot be learned solely from books or lectures. Students need to experiment, research, design, and work with various tools and materials in a laboratory based environment. To study technology in its full social and environmental context, students must move from designing and making simple objects to designing, constructing, and operating a technological enterprise. In such a learning environment, students would learn the importance of planning, coordination, and assessment of technological innovation and implementation.

—Anthony F. Gilberti

Considering the technology gender gap that exists today, there can be no doubt that our current educational system is not engaging female students in technology or awakening them to possibilities of the technology industry as a career. Females are not afraid of computers or lack the ability to master computer skills, but they find the computer environment objectionable. Several factors within the educational system heighten these objections and impede female progression through technology classes. It is these factors that our educational system must address.

Single-sex computer classes offer female students the educational advantages of learning in a comfortable, non-threatening classroom environment where they are encouraged to enthusiastically participate in classroom discussions and activities. In these classes, curriculum may be adjusted to reflect the need of females to see computers as productivity tools. As a result of positive experiences gained while attending single-sex computer classes, females are more likely to pursue higher level computer classes.

Although it is possible to argue that single-sex computer classes do not mirror the real world females must contend with once outside the classroom, they are, however, effective interim interventions to enable females to lessen the current technology gap.

—Sandra L. Swain and
Douglas M. Harvey

We teach physical health from Kindergarten throughout the rest of a person's life. We typically don't teach mental health at all.

—Ross Szabo

The demands put on schools are not restricted to preparing students for the increasing demands of the labor market. A child needs to grow to be an informed member of the society in which they live and to have the knowledge and capabilities to participate. In addition to acquiring basic cognitive and social and emotional skills, a solid Global Citizenship curriculum should be introduced in the school system even in the developing world. Understanding how his or her own country is organized, and how it connects to a globalized world, will be of great value for the student.

—Claudia Costin

The democratic principle requires that every teacher should have some regular and organic way in which he can, directly or through representatives democratically chosen, participate in the formation of the controlling aims, methods, and materials of the school of which he is a part.

—John Dewey (1937)

One of the most significant consequences of the proliferation of tests over the last decades of the 20th century and the first of the 21st has been this tendency of assessment to direct the curriculum. Like a huge magnet, assessment drags curriculum toward it. It should, of course, even if we accept the need for tests, be the other way round: the curriculum should be shaped independent of any consideration of tests: tests should be constructed and administered in another space, both literally and metaphorically, hermetically sealed not only from the teacher's gaze but also – and even more importantly—from the teacher's consideration.

In practice, though, this never happens. It is inevitable that if you decide regularly to test children's performance on the curriculum, and if, furthermore, you make teacher's careers and school's futures depend on the result, the tests will very quickly come to dominate what is taught. Not only the content, but also the style and manner of the teaching will be influenced by the tests. Teaching will be about getting the right answer, irrespective of understanding.

—Gary Thomas

Over recent years, [there's been] a strong tendency to require assessment of children and teachers so that [teachers] have to teach to tests and the test determines what happens to the child, and what happens to the teacher...that's guaranteed to destroy any meaningful educational process: it means the teacher cannot be creative, imaginative, pay attention to individual students' needs, that a student can't pursue things [...] and the teacher's future depends on it as well as the students'...the people who are sitting in the offices, the bureaucrats designing this—they're not evil people, but they're working within a system of ideology and doctrines, which turns what they're doing into something extremely harmful [...] the assessment itself is completely artificial; it's not ranking teachers in accordance with their ability to help develop children who reach their potential, explore their

creative interests and so on [...] you're getting some kind of a 'rank,' but it's a 'rank' that's mostly meaningless, and the very ranking itself is harmful. It's turning us into individuals who devote our lives to achieving a rank, not into doing things that are valuable and important.

It's highly destructive...in, say, elementary education, you're training kids this way [...] I can see it with my own children: when my own kids were in elementary school (at what's called a good school, a good-quality suburban school), by the time they were in third grade, they were dividing up their friends into 'dumb' and 'smart.' You had 'dumb' if you were lower-tracked, and 'smart' if you were upper-tracked [...] it's just extremely harmful and has nothing to do with education. Education is developing your own potential and creativity. Maybe you're not going to do well in school, and you'll do great in art; that's fine. It's another way to live a fulfilling and wonderful life, and one that's significant for other people as well as yourself. The whole idea is wrong in itself; it's creating something that's called 'economic man': the 'economic man' is somebody who rationally calculates how to improve his/her own status, and status means (basically) wealth. So you rationally calculate what kind of choices you should make to increase your wealth—don't pay attention to anything else—or maybe maximize the amount of goods you have.

What kind of a human being is that? All of these mechanisms like testing, assessing, evaluating, measuring...they force people to develop those characteristics. The ones who don't do it are considered, maybe, 'behavioral problems' or some other deviance [...] these ideas and concepts have consequences. And it's not just that they're ideas, there are huge industries devoted to trying to instill them...the public relations industry, advertising, marketing, and so on. It's a huge industry, and it's a propaganda industry. It's a propaganda industry designed to create a certain type of human being: the one who can maximize consumption and can disregard his actions on others. It's massive, and it starts with infants.

—Noam Chomsky

Analyzing news media is part of a learning approach known as media literacy, which helps students access, analyze, evaluate, and create messages using media in various forms. Media literacy has been central to the curriculum in the United Kingdom since the 1980s. The move to a national curriculum in England and Wales in the late 1980s expanded opportunities for older high school students to explore media issues. By 2000, more than 18,000 students in the United Kingdom were sitting for 'A' level exams in Media Studies, Film Studies, and Communication Studies, 5,000 students were being tested on media knowledge within the vocational education curriculum. Since 1998, there has been a distinct media literacy component to the language arts curriculum for 14- to 16-year old students.

—Renee Hobbs

Reading should be a major way to teach thinking. I have taken another step to suggest that television be used to teach thinking skills. Television is an excellent medium for this purpose, for several reasons. Television holds children's attention: they are interested. They want to understand the greater meaning of what they watch. Television often provides more substance to work with. Children's literature is limited to a child's reading level, not his thinking level.

Here is a list of comprehension and thinking skills I have taught through the use of television programs. These are skills that can be found in any book on the teaching of thinking and are also among the major comprehension skills mentioned in reading textbooks:

Logical predictions.

Interpreting characters' feelings.

Empathizing with characters.

Drawing conclusions.

Making generalizations.

Solving problems.

Interpreting reactions, motives, moods.

Recalling information to prove a point.

Categorizing.

Determining cause and effect.

Distinguishing between fact and opinion.

Judging the validity and importance of ideas.

Contrasting and evaluating various points of view.

Understanding relationships between characters' actions and social adjustment.

Creating new interests.

Understanding of other cultures and values.

Solving mysteries.

Determining the settings of stories.

Interpreting emotions.

Understanding implied meanings.

Speculating about future events.

Predicting the actions of characters.

Making comparisons.

Identifying changes in characters' behavior and attitudes.

Identifying exaggerations.

Recognizing incongruities and faulty assumptions.

Using and understanding figurative language.

—Marilyn Droz

THE SCHOOL LIBRARIAN'S ROLE IN PROMOTING READING

Strategies to promote reading within the building, attract students to the library, and help students appreciate the library through the initiative of the library staff:

- Book of the day—Each day school announcements will ‘advertise’ a book. The announcement reader can summarize the description on the book jacket to interest students in the book. The library staff will display the book in the library for a day and then check it out.
- Extended library hours —8 a.m. to 4 p.m. with students using the library before school with a pass.
- Racks of paperback books—Create high interest, attractive, and easy-access book displays for students.
- Spontaneous rewarding of students for carrying a leisure-reading book with them during the school day. The principal could ask to see students’ library books at any time and reward them with certificates or other incentives.
- Sponsor reading competitions such as Battle of the Books among homerooms or between schools.
- Conduct research scavenger hunts.
- Hold a luncheon for select students and give them the first opportunity to preview new books.
- Encourage teachers to hold events and activities in the library so that students come to view the library as an interesting and popular school destination.
- Sponsor a paperback book exchange.
- Create bibliographies for different interests and also for various problems students face.
- Promote the library and library activities in the school newspaper and parent newsletter.
- Award certificates or other incentives after a student reads and completes a librarian-created survey/questionnaire.
- Prepare a brochure or other handout for students and parents explaining library services and policies.
- Deliver book talks or talks on topics that students can later explore in specific books.
- Create a bulletin board or display case where students can post their reviews of favorite books they have read. Encourage them, also, to post their reviews on such websites as Amazon.com.

—Dan L. Miller

Although [state] high school standards and courses tend to emphasize literature, most of the reading students will encounter in college or on the job is informational in nature (e.g., textbooks, manuals, articles, briefs and essays)...Most of the writing students will do in college and work is to inform and persuade, often requiring students to use evidence to support a position. Research also is cited as an important skill for college and work. State standards tend to give these types of writing short shrift, emphasizing narrative writing instead.

—*Achieve, Inc.*

Many educators have reported great success when they have integrated graphic novels into their curriculum, especially in the areas of English, science, social studies, and art. Teachers are discovering that graphic novels—just like traditional forms of literature—can be useful tools for helping students critically examine aspects of history, science, literature, and art.

—*scholastic.com*

Although one might expect the schools to be trying hard to make reading appealing to boys, the K12 literature curriculum may in fact be contributing to the problem. It has long been known that there are strong differences between boys and girls in their literary preferences. According to reading interest surveys, both boys and girls are unlikely to choose books based on an ‘issues’ approach, and children are not interested in reading about ways to reform society or themselves. But boys prefer adventure tales, war, sports and historical nonfiction, while girls prefer stories about personal relationships and fantasy. Moreover, when given choices, boys do not choose stories that feature girls, while girls frequently select stories that appeal to boys.

Unfortunately, the textbooks and literature assigned in the elementary grades do not reflect the dispositions of male students. Few strong and active male role models can be found as lead characters. Gone are the inspiring biographies of the most important American presidents, inventors, scientists and entrepreneurs. No military valor, no high adventure. On the other hand, stories about adventurous and brave women abound. Publishers seem to be more interested in avoiding ‘masculine’ perspectives or ‘stereotypes’ than in getting boys to like what they are assigned to read.

—Mark Bauerlein and
Sandra Stotsky

More young children than ever (about two-thirds of 4-year-olds) are in some form of institutional care, and recent trends in early-childhood education have filled many of their classrooms with highly scripted lessons and dull, one-sided ‘teacher talk.’ In such environments, children have few opportunities for spontaneous conversation.

—Erika Christakis

His gaze settles on the discarded book. He leans, reaching until his fingertips graze *Dante's Inferno*, still on its bed of folded sheets. 'What have we here?' he asks.

'Required reading,' I say.

'It's a shame they do that,' he says, thumbing through the pages. 'Requirement ruins even the best of books.'

--Victoria Schwab

When a subject becomes totally obsolete we make it a required course.

—Peter Drucker

It is our American habit, if we find the foundations of our educational structure unsatisfactory, to add another story or a wing.

—John Dewey

As I coach in classrooms, travel internationally, and lead professional development, I see school hallways near and far filled with cookie-cutter projects. We're 'over rubricing' our students and baking out their creative approach to tackling real-world problems. Educators need to be preparing students for college and career by focusing on the 4Cs [critical thinking, communication, collaboration, and creativity].

—Meg Ormiston

We're suggesting that [kids are] missing something if they don't read but, actually, we're condemning kids to a lesser life. If you had a sick patient, you would not try to entice them to take their medicine. You would tell them, 'Take this or you're going to die.' We need to tell kids flat out: reading is not optional.

—Walter Dean Myers

For reasons we've explored, children struggling to read aren't going to be helped by the one-size-fits-all approach that is typical in so many schools. Rather, we need teachers who are trained to use a toolbox of principals that they can apply to different types of children.

—Maryanne Wolf

The tremendous pleasure that can come from reading Shakespeare, for instance, was spoiled for generations of high school students who were forced to go through *Julius Caesar*, *As You Like It*, or *Hamlet*, scene by scene, looking up all the strange words in a glossary and studying all the scholarly footnotes. As a result, they never really read a Shakespearean play.

—Mortimer J. Adler

They assign things to students which are way over their heads, which destroys your love of reading, rather than leading you to it. I don't understand that.

—Charles M. Schulz

Now is the time to adopt education systems that will help ensure that humans stay smarter than the computer systems we build. If we get the design and adoption of AI for use in education right, it will help us to understand our own progress as learners and teachers beyond increasing our knowledge and understanding of specific curricular subject areas to increasing our social, emotional, and physical intelligence too. The design of AI for education must be informed by what we know about how people learn, and it must involve educators as early as possible in the design process. Data is the new oil...it feeds AI to help us build smart technology. However, just like oil, data is crude until it is refined by well-designed AI, and the design of the AI we use in education needs to be very, very good indeed, because learning and human intelligence rare extremely complex.

—Rose Luckin

Technology as it's used today in many classrooms doesn't motivate or foster creativity, imagination, and new ways of thinking beyond some unique anecdotal examples. Only by opening our minds to explore 'what's possible with technology' can we break away from the cookie-cutter models that so many technology and content companies continue to drive educators toward. We need to remain focused on the 'RoE' or Return on Education. The question for all of us is, 'How do I want technology to transform teaching and learning?'

—Elliott Levine

In urging Congress to create a national university in 1796, George Washington said: 'A primary object of such a national institution should be the education of our youth in the science of government.'

—Jeffrey Rosen

Thirty-three percent of college students are taking at least one online course, according to the Center for Online Education....Some courses, even at large state universities, are only offered online. My daughter, a traditional nursing student taking on-campus courses, has one blended and one online course because those courses are only offered in those formats. If K-12 schools are going to prepare students properly for college or careers, online experiences are essential.

—Steve Baule

In my entire high school career, my school has not had any mandatory education on consent, appropriate conduct or how to report inappropriate incidents. All of my education has been from outside sources: parents, books, videos online. There is really no centralized curriculum on what we should be teaching...so we don't all agree on what is and what isn't consent.

—Jackson Teetor, High School Senior

To inspire more students of color to pursue STEM, we have to redefine what excellent STEM instruction and curriculum look like. Instead of lectures and labs that are disconnected from everyday reality, students need to 'remix the content they've internalized' to create solutions for real people. This remixing involves developing an understanding of what problems can and cannot be solved with technology, learning how to source the necessary tools and work on a team, and discerning scope and scale. New models of learning need to be co-created by educators with the students and communities they serve. It's nuanced, time-intensive work, and requires that more people engage in better conversations.

—Wisdom Amouzou

WHY MUSIC?

Music is a Science.

Music is Mathematical.

Music is a Foreign Language.

Music is History.

Music is Physical Education.

Music Develops Insight and Demands Research.

Music is all these things, but most of all,

Music is Art.

That is why we teach music:

Not because we expect you to major in music...

Not because we expect you to play or sing all your life...

But so you will be human...

So you will recognize beauty...

So you will be close to an infinite beyond this world...

So you will have something to cling to...

So you will have more love, more compassion, more gentleness, more good—

in short, more LIFE.

—*The Student Music Organizer*

CHOOSING A SOCIAL EMOTIONAL LEARNING CURRICULUM

Look for a curriculum that:

- Becomes part of a school wide and community-wide discussion (with parents) about values, beliefs about how to treat one another, and policies that reflect these values.
- Poses developmentally and culturally appropriate social dilemmas for discussion.
- Challenges the idea that aggression and bullying are inevitable and expected behavior. Demonstrates how people can resolve tensions and disagreements without losing face by giving detailed examples of people who responded to violence in an actively nonviolent manner.
- Encourages students to express their feelings and experiences concerning bullying and enables students to generate realistic and credible ways to stay safe.
- Supports critical analysis of the issues and rejects explanations of behavior based on stereotypes (such as the idea that boys will use physical violence and girls will use relational violence).
- Helps children and teens become critical consumers of popular culture.
- Addresses all types of bullying.
- Discusses how bullying reflects broader societal injustice.
- Gives ideas for what the adults in the school can do as part of the whole school effort.

Beware of any curriculum that:

- Ignores such issues as injustice, stereotype, and imbalance of power regarding gender, race, social class, and sexual orientation.
- Focuses on the victim's behavior as the reason for being a target of bullying.
- Focuses on student behavior without addressing schoolwide climate.
- Emphasizes having students tell the teacher about the bullying and ignoring bullying assaults.
- Focuses on either bullying only or victimization only.
- Portrays victims or bullies as unpopular misfits.
- Simplistic or trendy solutions (for example, 'boys will be boys').

- ❑ Promotes good solutions, such as peer mediation, but does not provide clear guidelines for when these strategies should and should not be used.
- ❑ Lacks evidence-based, population-specific suggestions for design, implementation, training, and evaluation.

—Donna M. San Antonio

BENEFITS OF WRITING THERAPY IN CLASSROOM SETTINGS:

- Many students are enabled to discuss their needs and their problems.
- The therapeutic writing facilitates progress in counseling interviews.
- Students become more willing to go into the subject matter of the class and are more successful in it.
- Learning takes place through the curriculum without lowering standards.
- Students assume more responsibility in classroom activities.
- Students achieve an increased sense of security.
- Students gain more self insight.
- As more value is placed upon individuals, they become more aware of themselves

—Joseph S. Zaccaria,
Harold
Alton Moses, &
Jeff S. Hollowell

Quotations can function in any number of effective ways in the English classroom, and because of their brevity, the effect of the message, and their general usefulness, teachers should consider quotations as a staple of the unit lesson plan.

—Dan L. Miller

THE NEED FOR A PHILOSOPHY OF DISCIPLINE

A well-conceived and relevant curriculum attuned closely to the needs of young people can generate a mood of positivism within a school and thusly reduce the need for rigid administrative control. So also does the classroom teacher stand as a major deterrent to infringements against school order. Although a dynamic curriculum and a professional staff can certainly reduce behavioral deviations, guidelines for student behavior are mandatory. Adolescents at the high school level are fast approaching adulthood. Indeed, many of them have physically reached adulthood by the time they graduate, but in reference to emotional growth and maturity they are several years removed from adulthood. Inherent in the teenager is the desire and often passion for freedom from authority. A large part of maturity is the responsible control of one's emotions and urges, and many adolescents have not yet reached

that stage of maturity. Those excesses of the adolescent, therefore, which do not succumb to controls from within must be modified from without.

Limits for student behavior must be clearly understood and accepted within the school. Adelaide Johnson attributes 'a sizable incidence of juvenile delinquency to the inability or refusal of adult authority figures to establish clear limits for youth to operate within.' Such limits are needed by all, in differing degrees depending on maturity levels. For the insecure teenager in a world of conflicting values, interests, and behavior these limits are mandatory. Just as our American society bases its order on the Constitution of United States of America so must the school prepare a carefully written code of behavioral management. The purpose and procedure of this code should reflect the school's philosophy of education and the worthwhile values of the community. This codification of the laws of the school should serve as a guide for the educational program in that it makes discipline a working part of the school's philosophy of education, clarifies each student's status, minimizes hasty and emotionally influenced action, and establishes a clear-cut support for teachers and administrators. Once a well-defined philosophy of discipline is in hand and clearly understood, the school community has a strong base from which to work toward the positive emotional growth of the student body.

—Dan L. Miller

One who is not stirred by ideas, who is indifferent to literature and unmoved by painting and music, who has nothing to contribute but names and titles and memorized adjectives, would far better leave his pupils and himself at peace.... There should be a collaboration of history with other special teachers or departments—English, fine arts, music, science, and others according to need.

—J. Montgomery
Gambrill

The ideal of cultural history is to trace the evolution of a people with reference to all the conditions and influences that helped to shape its aspirations and its way of life...to depict the human past at a given period in its totality, with the various forces and factors duly interrelated and appraised.

—A. M. Schlesinger

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

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

Field trips to live theater enhance literary knowledge, tolerance, and empathy among students, according to a study. The research team found that reading and watching movies of *Hamlet* and *A Christmas Carol* could not account for the increase in knowledge experienced by students who attended live performances of the plays.

—*University of Arkansas*
Department of
Education Reform

Adults really drilled ‘stop, drop & roll’ into our heads but didn’t teach us how to balance a check book. I have never ONCE been on fire and I’ve been in debt for years. Riddle me that.

—Sativa Plath

Although society assumes that (1) schools should teach grammar and (2) learning grammar will help students to write better, those who teach both writing and grammar have long questioned the second assumption. As early as 1906, researcher

Franklin S. Hoyt demonstrated that a knowledge of grammar is not a concomitant of effective writing....While some studies connect grammar instruction and writing, many more suggest that the ability to write well has little to do with how much formal grammar a person knows. One might argue that if the reverse were true, grammarians would be the best writers in our society. Those who have read widely in their works certainly cannot endorse such a contention.

—R. Baird Shuman

Citing a study of 3,000 graded essays drawn from students across the United States, (Rei R.) Noguchi notes that the 20 most common types of error are in punctuation, especially the use of commas and apostrophes; in verb use, particularly irregular verbs; and in pronoun use and reference of pronouns.

—R. Baird Shuman

The study traditional school grammar (i.e., the definition of parts of speech, the parsing of sentences, etc.) has no effect on raising the quality of student writing. Every other focus of instruction...is stronger. Moreover, a heavy emphasis on mechanics and usage (e.g., marking every error) results in significant losses in overall quality....The presentation of good pieces of writing as models is significantly more useful than the study of grammar....Free writing. This focus asks students to write freely about whatever concerns them. As a major instructional technique, free writing is more effective than teaching grammar in raising the quality of student writing.

—George Hillocks, Jr.

Rich literature is an effective antidote to the intrinsic impulsiveness of adolescents, especially in an electronic era. If it is true that the medium is often the message, curricula that depend on careful reading and thoughtful conversation are powerful models for the responsible, informed, respectful communication essential to all healthy human relationships. In addition, literature-based education shows students that art is not an irrelevant pastime typically reserved for Sunday afternoons. On the contrary, fine literature etches life's complexities clearly and when well taught inspires us to discover wisdom for our own lives....good teachers connect ideas in literature to choices in real life. Conversations begun in the classroom but expanded to include parents, other adults, and friends who are not classmates help teenagers come to appreciate the value of collective wisdom. It also helps them realize that we continue to grapple with the intricacies of relationships throughout adulthood and that the potential rewards are worth the effort. As students consider

the connections to their own lives, the story can remain a sanctuary. Talking about fictional characters and events affords a measure of safety but can address very personal issues.

—Stephan Elenwood and
Nancy McLaren

I've come to believe in my bones that children—especially children in poverty—are desperate for an education to help them discover a sense of meaning and purpose. Yet, we have decided to narrow our focus to academic achievement, which creates an unhealthy fixation on grades as a sole indicator of self-worth.

—Shanna Peeples

Allowing a student with a hidden disability (ADHA, Anxiety, Dyslexia) to struggle academically or socially when all that is needed for success are appropriate accommodations and explicit instruction, is no different than failing to provide a ramp for a person in a wheelchair.

—*TheOTClinic*

Since the 1980s, arts education has declined disproportionately for certain groups. Black students, and students whose parents have less than a high school diploma, have experienced a 50% and 77% decline in school-based exposure to the arts, while white students and those with college-educated parents have experienced virtually no decrease.

This shameful discrepancy is yet another example of the educational injustice that pervades our system. All children deserve a well-rounded education that inspires and engages them and introduces them to the delights of theater, music, and visual arts. Yet too often, poor children attend schools where their educational experience is reduced to a colorless line up of low-level math and rudimentary literacy.

One reason for this is that low-income children often enter school behind in math and literacy skills. Educators want to ensure their students can catch up, and thus dedicate more time to basic math and reading skills and less time for art and field trips. It is true that students who start school behind benefit from extended, high-quality instruction in math and literacy, but the flip side of this is also true: spending less time on other subjects can actually have a damaging effect on learning.

Too few educators understand that broad and robust background knowledge—built through a rich, comprehensive curriculum that includes study of and exposure to the arts, both in and out of school—is actually vital to helping children become great readers, writers, and thinkers. Furthermore, the engagement that stems from in-school opportunities to discover and pursue co-curricular passions and talents spills over to academic classes.

—Eva Moskowitz (2019)

Children must be taught how to think, not what to think.

—Margaret Mead

Consider the research of the sociologist James Coleman, of the University of Chicago. He found that students from similar economic and social backgrounds consistently do better at Catholic high schools than at public high schools.

The immediate explanation is simple: Students at Catholic schools take more rigorous courses in math, English, and history, and they do nearly 50 percent more homework. But why do Catholic schools make these demands when public schools don't?

The difference, Mr. Coleman concluded, lies with parents. 'Parents [of public-school students] do not exercise as much authority over their high-school-age students as they once did,' he recently told a conference at the Manhattan Institute.

Since the 1960s, public schools have become less demanding—in discipline, required coursework, and homework—because they can't enforce stiffer demands. By contrast, parents of parochial-school students impose more control. 'The schools therefore [are] able to operate under a different set of ground rules,' Mr. Coleman said.

—Robert J. Samuelson

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

In a democracy, the principle of human dignity insists that people have a say in decisions that affect them and that their say counts for something. For this reason, probably no idea is more widely associated with democratic classrooms than the involvement of young people in making decisions about what and how things are done.

—James Beane

Teachers, teachers, teachers, when will they learn. I have the attention span of a raisin. I need to be kept busy with things that are fun. Teachers need to find out what interests kids and what stuff they like to do. So for a less whiny, annoyed, and temperamental class, make it fun.

—Anonymous Middle
School Student
quoted by 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

Students' decisions to drop out of school [are] not...a single momentous action but... the culmination of a long path of disengagement from school. Schools must stop looking at what kids are doing—the risk factors or attributes that make them likely to disengage—and look at what the school is doing. Does your school make kids feel anonymous? Impose excessively strict discipline? Teach courses that feel irrelevant to students? Fail to support students academically or socially in the classroom?

—Jeremy D. Finn

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

All middle level curricula should emphasize teaching skills, hands-on activities, and application of information learned. Exploratory programs can give students opportunities to ‘dabble’ without being locked into all courses every day for a full year. Grades should not be a major factor in such courses; perhaps a pass-fail option is possible. Regardless, the chance to explore music, art, computers, careers, home economics, industrial and technical arts, and other areas of interest is of major importance in a middle school program.

The curriculum and instruction should expose students to both concrete and abstract ideas—even if they don’t understand them all. Learning activities associated with such topics need not be graded; the importance lies in exposing students to these ideas.

Middle school teachers should ask questions that take students beyond simple recall and into inquiry. Good questioning techniques encourage students to justify answers.

And, a knowledge of student learning styles can help teachers organize activities that individualize instruction.

—Samuel H. Campbell

When young people’s education is at stake, compromise is a crime.

—Milan Kundera

Owing to the shape of a bell curve, the education system is geared to the mean. Unfortunately, that kind of education is virtually calculated to bore and alienate gifted minds. But instead of making exceptions where it would do the most good, the educational bureaucracy often prefers not to be bothered.

In my case, for example, much of the schooling to which I was subjected was probably worse than nothing. It consisted not of real education, but of repetition and oppressive socialization (entirely superfluous given the dose of oppression I was getting away from school). Had I been left alone, preferably with access to a good library and a minimal amount of high-quality instruction, I would at least have been free to learn without useless distractions and gratuitous indoctrination. But alas, no such luck.

Let's try to break the problem down a bit. The education system [...] is committed to a warm and fuzzy but scientifically counterfactual form of egalitarianism which attributes all intellectual differences to environmental factors rather than biology, implying that the so-called 'gifted' are just pampered brats who, unless their parents can afford private schooling, should atone for their undeserved good fortune by staying behind and enriching the classroom environments of less privileged students.

This approach may appear admirable, but its effects on our educational and intellectual standards, and all that depends on them, have already proven to be overwhelmingly negative. This clearly betrays an ulterior motive, suggesting that it has more to do with social engineering than education. There is an obvious difference between saying that poor students have all of the human dignity and basic rights of better students, and saying that there are no inherent educationally and socially relevant differences among students. The first statement makes sense, while the second does not.

The gifted population accounts for a very large part of the world's intellectual resources. As such, they can obviously be put to better use than smoothing the ruffled feathers of average or below-average students and their parents by decorating classroom environments which prevent the gifted from learning at their natural pace. The higher we go on the scale of intellectual brilliance – and we're not necessarily talking just about IQ—the less support is offered by the education system, yet the more likely are conceptual syntheses and grand intellectual achievements of the kind seldom produced by any group of markedly less intelligent people. In some cases, the education system is discouraging or blocking such achievements, and thus cheating humanity of their benefits.

—Christopher Langan

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

—Alan M. Dershowitz

To be effective, today's media specialists must be familiar with the curriculum and with academic standards for all grade levels at their schools. There are several reasons for this. First, one of the media specialist's primary responsibilities is collections development. As a part of this, they must ensure that media center resources are both curriculum-relevant and comprehensive. Familiarity with the curriculum also helps the specialist develop instruction of library and information skills that can be more closely aligned with content area goals.

—Rebecca Molineaux

It's 2019...get rid of Algebra 2 in high school and replace it with financial fundamentals. Teach kids about careers (not just college), salaries, credit, budgeting, taking out a loan, investing, college debt, buying a house, filing taxes.

—Larry Geaghan

We fall in love with what we read, and faster perhaps with poetry than anything else by dint of its power...Reading poetry is not only a crucial part of a complete education, but also one of life's great joys.

—*The Wall Street Journal*

Poetry teachers especially at the high school and undergraduate levels, should spend less time on analysis and more on performance. Poetry needs to be liberated from literary criticism. Poems should be memorized, recited, and performed. The sheer joy of the art must be emphasized. The pleasure of performance is what first attracts children to poetry, the sensual excitement of speaking and hearing the words of the poem. Performance was also the teaching technique that kept poetry vital for centuries. Maybe it also holds the key to poetry's future.

—Mark Edmundson

Although much wonderful poetry is being written, the American poetry establishment is locked into a series of exhausted conventions—outmoded ways of presenting, discussing, editing, and teaching poetry. Educational institutions have codified them into a stifling bureaucratic etiquette that enervates the art. These conventions may once have made sense, but today they imprison poetry in an intellectual ghetto. It is time to experiment, time to leave the well-ordered but stuffy classroom, time to restore a vulgar vitality to poetry and unleash the energy now trapped in the subculture. There is nothing to lose. Society has already told us that poetry is dead. Let's build a funeral pyre out of the desiccated conventions piled around us and watch the ancient, spangle-feathered, unkillable phoenix rise from the ashes.

—Mark Edmundson

However justifiable their focus on curricula and innovation and institutional reform, people who see education as a cure-all have largely ignored the metric most predictive of a child's educational success: house-hold income.

The scientific literature on this subject is robust, and the consensus overwhelming. The lower your parents' income, the lower your likely level of educational attainment. Period.

—Nick Hanauer