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WHAT IS A SCHOOL?

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1 of 2

Everybody, I hope, would agree that a school is a place where teaching and learning go on, steadily and systematically. That is its function. Its purpose is something else: to remove ignorance. A school can do several other good things at the same time, but it has one purpose only: to remove ignorance. This distinction is important because these definitions serve as a standard by which to judge what is done and what is proposed in the name of schooling. A half-century's agitation for reform has thrown into currency so many notions and slogans and started so many trial programs that in the best minds and most earnest hearts, confusion reigns. If it is to be dispelled, much demands our attention.

Removing ignorance is more complicated than removing tonsils, and it is sometimes as painful to the child. The teacher uses no anesthetic—and should not be one. Hence the first of our concerns is, How does a teacher teach? Next, How does the learner do his part? Followed by, What should be taught? Then, How to test the knowledge acquired? Next, Who should run the school? Followed by, What role for the parents? And lastly, What should go into teacher training?

One of the complaints today is that, alongside teachers who are willing and able, schools have many who are willing but unable. Worse, there is a teacher shortage—forty thousand are wanted in Texas alone—and everywhere good ones leave for other work. Teaching is becoming a lost craft. To understand and appreciate the act of teaching, imagine yourself in the following predicament. You are visiting a town for the first time and you want to find a post office. You accost a pleasant-looking person and ask the way. He smiles, waves an arm vaguely, and says, “You go down to Maple and then you walk three blocks, maybe four—no I guess it’s only three—to Jackson, and then you turn ... turn left toward the square. The post office is across the way—you’ll see the flag in front.”

All of this has been rattled off at speed, and you are no wiser. You thank him but must ask again. You approach a middle-aged woman with a bright countenance. “The post office?” she says. “Yes. You keep on as you were going, toward Maple Avenue. You can see it from here; it’s the wide street where all the traffic is. You cross to the far side and, going right as you face that side, you walk two-and-a-half blocks to the narrow cross-street, called Jackson. There is no street sign, but facing you as you come to it is the name Jackson on the big general store. You turn left on Jackson. It soon takes you to a plaza with a fountain in the middle. There is a diagonal path, which you take all the way across, and straight ahead of you is a small office building. The post office is on the ground floor. Remember: down to and across Maple, then right two-and-a-half blocks to Jackson, the narrow street, left on it, and across the plaza.”

What makes this woman’s directions a model of what teaching is? To teach means first to put oneself in the mental state of the learner, aware of his ignorance and his capacity for confusion. The helpful woman removed both by breaking up the route into a series of things to be noted as they appeared. She took care to direct you to the far side of the avenue, pointed out that Jackson was a narrow

street and had no sign. In describing, she repeated names and facts even before her final summing up.

That bespoke her talent. Now for her qualifications: she knew her subject in full detail, as the first informant did not. She spoke without backtracking and, unlike him, with pauses and not too fast. The poor man probably suspected his incompetence, because he ended in a way I did not mention. He said: “You can’t miss it.” That is a sure sign of poor directions.

A teacher, then, is a person who, by squaring his or her mind with that of the class, collectively or singly, removes ignorance on a subject fully mastered. This definition tells us not only what teaching is like, but what teacher training calls for. The unhappy truth is that there are few born teachers, fewer perhaps than born poets. Schools must make do with people who are neither, but who can be trained for their task. More on that later.

Now turn to the learner, the child in school. The difference between the pupil and the adult who wants directions is that the child has no question in his mind. To get him to learn, to remove the ignorance he is not aware of, the teacher must create some equivalent to a question—in other words, stir up interest and hold attention. Long before school years, the infant learns at a great rate because it wants to walk, talk, and do all sorts of things with its muscular energy. Next, the child asks questions: What is that for? What does this mean? It is then that parents’ care matters enormously. In one of his short stories, Ring Lardner has a boy ask his father a question, after which comes, “Shut up, he explained.”

But although all can learn school subjects—no social class, ethnic background, or skin color creates exceptions—most children are not exactly eager for school. As Bil Keane points out in one of his Family Circus cartoons, “Billy’s mind is amazing. It starts working when he wakes up and never stops till he gets to school.” It is the school’s duty to establish conditions that reinforce the teacher’s effort to keep the child’s mental engine in gear. An early start in a preschool program, where learning is close to playing, accustoms the child to going daily to work with others, doing what he is told by a grown-up.

Learning is an invisible operation, so it cannot be shown by example; but obviously a learner is one who makes a mental effort under guidance and correction. Knowledge cannot be poured into a child like liquid into a bottle. The pupil has a responsibility: if pupil is to

turn into student, he must make a mental effort and follow instructions.

Learning is done in three distinct ways: listening to the teacher explain, drilling to memorize rudiments, and taking part in discussion. Drill is done by coaching and recitation in class and also on one's own in study hall and at home. These last two are imperative. Study hall is scheduled for periods purposely left empty of class work; a supervising teacher is there to help and to ensure quiet application. Homework, which is practice in *re*-learning, enables the teacher to see what each pupil has or has not understood. These benefits disappear when the parents do more than encourage or explain the question and actually write the paper or solve the problems.

Memorizing has a bad name, but it is essential. The multiplication table, the verb forms of a foreign language, and all techniques such as using logarithms, cannot be mastered in any other way. Drill also teaches the lesson that in life one must often go through drudgery in order to achieve something one wants to know or do.

The third mode of learning, by group discussion, is appropriate in middle or high school when the teacher thinks the class mature enough to carry on this seminar-like exercise. The topic is an idea or situation that has been duly studied and offers room for opinion. When ably led, discussion teaches the young person how to think straight, which no course called "Thinking" will succeed in doing. In discussion, the teacher sees to it that each student speaks clearly, has listened accurately to the previous speaker, and meets the point just made, using facts and reasoning and keeping the temper cool. A session of this sort engages the whole class, unlike what is often done—a pseudo debate between students who impersonate a pair of historical figures and argue their views. Reading an assignment in a textbook, by the way, is not a fourth way of learning. Although it is reading practice, it is only another form of listening to a teacher expound.

All that I have described so far—school, teacher, and learner—imply some definite contents: What is to be taught and learned? *Any proposed subject must meet two demands: does it remove a patch of harmful ignorance? And is it teachable?* Before any answer, one fact stands out: reading is central. Every act of learning, through school and later life, depends on the ability to read; and the way to learn this skill is through the drill called phonics—

recognizing and sounding the letters and combining the sounds to form words.

It is sheer lunacy to try to teach the young to recognize a full word as a picture using the “look-and-say” method, assisted by flash cards and the Dick and Jane books. That adult readers grasp the whole word in one glance is a result of much reading, not a short-cut for beginners. Adults do arithmetic in their heads, but it would be madness to begin teaching the subject that way. To bypass phonics, as is done in the majority of schools today, suggests that the ancients who invented the alphabet to replace Egyptian hieroglyphics and cuneiform syllabics wasted their time. Look-and-say visits on the American child the plight of his Chinese counterpart, who must learn five thousand pictograms in order to become literate. This grievous blunder is *preposterism*—putting the cart before the horse—and it is preposterous also in the common meaning of absurd.

There is more to reading than making out words. The reading child must understand all that words mean and imply when put together in sentences. Next comes handwriting, which also depends on letters and sounds in spelling, and which requires the full attention it has lost of late years. Many business people are so fussy that they want employees who can write legibly. Some companies indeed have set up the equivalent of in-house elementary schools.

All school subjects face the challenge: Is it teachable? Today, school programs are loaded with subjects that are unteachable—for example, Family Living, Shopping and Community Resources, Good Citizenship, Self Esteem, and Thinking. They sound interesting and desirable but they are in fact a waste of time and effort. The typical unteachable subject is Social Studies, which has largely replaced History. Why unteachable? Because it is formless. *A classroom subject is one in which each phase grows out of the one before and builds up from simple to complex, until the student commands a body of organized knowledge.* Grammar, arithmetic, plane geometry, algebra, history, geography, physics, chemistry, biology, and foreign languages—these are teachable. They are naturally unified by system or by cause and effect. As for reading, writing, composition, and literature, which are less systematized, they rely on techniques that are learned by practice.

What is wrong with Social Studies and other formless subjects is that they are an indefinite mix of facts and ideas gathered from here and there among advanced subjects that *are* teachable: sociology, psychology, anthropology, economics, demography, law, pub-

lic health, government, and whatnot else. The result of trying to teach a hodgepodge is that it leaves in the mind neither organized information nor clear principles—and it favors sloppy work.

What of the arts, for which there is a demand by some parents and educators? Is it appreciation, history, or performance that is wanted? And of which arts? Too often where “Art” has been offered, pupils are again given a hodgepodge: two weeks of looking at Chinese painting and two weeks at Japanese, followed by a look at Belgian lace and then at Navajo rugs. The far more lasting and useful instruction aims at mastery of the fundamentals: drawing with pencil or charcoal and studying color and composition; for music, learning how to read notes, which leads to sight-singing and the recognition of simple musical forms. Some children will add playing an instrument, and some will join the band. The graphic rudiments equip students for future careers in architecture and the fine arts, commercial art, and industrial design. The music program gives a grounding for domestic enjoyment and professional work—all together preparing a child for what the public calls “the real world.”

Apropos of the real world, some parents—and still more students complain that history, literature, foreign languages, advanced mathematics, and science will not equip them for the real world’s work, for being—say—a firefighter or keeping a restaurant. Teachers must explain to parents and pupils that the effort of learning difficult subjects develops the talent of learning as such, including learning the job on the job, where promotion goes to the one with a quick grasp of unfamiliar facts and ideas. Besides, the school has a duty not only to the individual but to society, which is to hand down the treasury of knowledge. Without schools to perform this task, a civilized nation would turn into a mass of illiterate barbarians in thirty years.

Lastly, as everyone knows, these questioned subjects open the way to college and the professions. None may appeal to a fourteen-year old who four years later may be glad it was required. In this country today, the world of work keeps pleading for more recruits in the occupations that require high training, in technology and science especially. A state of shortage is not a signal to neglect the basics of mental development.

But something more needs saying on this topic. It is a fact of nature that not everybody feels at home with words and ideas. Many instead are deft with their hands; they have a sense of space and

size, an affinity with the make-up and workings of machinery. Still others, who are good at figures and systems, enjoy the ways of trade and finance, of clerical and managerial tasks. These talents deserve not just shop or keyboard work a few hours a week but a comprehensive technical and commercial curriculum (drop the misleading term *vocational*), taught by seasoned practitioners. These options should be open for the last two years of high school, when adolescents become impatient. Those well trained in these capacities are in great demand too.

Likewise geared to “the real world” is the much-debated “sex education.” Its proper name is Human Sexuality; it should loom large in a thorough course in Hygiene. With Sexual Reproduction must go also the elements of nutrition, sanitation, and personal and public health. These topics need no moral preaching added, if the facts are made so vivid through description and pictures as to constitute strong warnings of natural consequences.

One more type of instruction should be expected of every teacher in every course: correcting mistakes in English, poor pronunciation, and jumbled thoughts in speech—and also demanding legible handwriting. To overlook these from laziness or fear of hurt feelings is the greatest disservice that can be done to the young. The correcting should be done firmly; not incessant nagging but timely and kindly severity. The power of self-expression satisfies an emotional need in the child and makes for self-esteem. And articulate-ness has a cash value in “the real world.”

The curriculum sketched here is by and large that of the American public school of the 1920s. Indeed, in a good many high schools it was even richer. A senior had had courses in physics and chemistry and was taking spherical trigonometry besides. In English class, he might be reading the shorter poems of John Milton under a teacher who knew how to make them interesting; and, having taken three years of Latin, he would be reading Virgil without strain. At the Oak Park, Illinois, high school that Ernest Hemingway attended, a room was reserved for the Latin Club, where students talked to one another in something like that language.

Even without these particular requirements, the typical American high school of that era graduated young people who deserved to be called educated. The only defect—and it was a disgraceful one—is that access to this schooling was largely denied to the black population.

After teaching and learning comes examining. This is a touchy subject. Pupils are nervous, teachers tyrannized, parents bewildered, politicians arrogant. *Fairness demands that examinations fit what has been taught.* They no longer do. Today, if children should join in a class-action lawsuit against present-day standardized testing, an upright judge would award them damages. To begin with, they are cheated of proper teaching time when the class hour is devoted to special coaching designed to outwit a prefabricated test made up by remote merchandisers.

Instead of check marks in a box, students' responses to essay questions show the teacher what each has learned and the student what he has forgotten. The multiple-choice test does neither. Instead, what it does is positive harm, because the so-called objective question does not call for knowledge: it calls for single-fact recognition. Just return to that town where you were a stranger seeking a post office. Time has passed and you wonder whether you could find your way again. What was the name of that wide avenue? Chestnut? No. You keep walking and there it is: Maple, of course! And soon comes the big shop—Jackson's, sure enough. Those names *seem* familiar; you have recognized them but *you could not summon them up.* You did not know them. *Knowing means the power to recall without any hints.*

Now let us consider a multiple-choice question that taps only our spacious ignorance. The statement reads: "The first man who drew down lightning from the clouds and showed it to be electricity was: (a) Patrick Henry; (b) Thomas A. Edison; (c) Benjamin Franklin; (d) Button Gwinnett." We have no idea—but we quickly reject Patrick Henry because we remember that all he ever did was to say "Give me liberty or give me death." Edison sounds plausible. "Electrical power today often comes from an Edison company"—but no, Edison is the lightbulb man, and that's not as far back as when electricity was first fiddled with. Edison is out. As for Button Gwinnett, who has ever heard of him? He doesn't sound real—nobody was ever named Button. So it's Franklin: the right answer, but by default, not knowledge.

The student who has wormed his way to Franklin in this fashion is clever, no doubt. But the test is not meant to reward cleverness; it is to find out who knows what. So his right answer should really be counted wrong. Nor is this all. Multiple-choice tests give the student a false idea of what knowledge is. They reduce it to bits of scattered information. Genuine knowledge consists of clusters of facts, *their relations and their significance.* It is this patterning that the mind needs to retain the whole; it is the answer to the question

the astute Bil Keane puts into a child's mouth: "How can I remember everything I know?"

It should be added that the bits of information offered by the standardized test sometimes mislead the able student. Consider the question noted earlier: the student who does know about electricity knows that the unit of inductance is called a henry, after the nineteenth-century physicist Joseph Henry. The presence of Patrick as an option is thus an unfair distraction.

Knowledge is properly tested through carefully framed questions which, by referring to a statement of fact in a sentence or two, direct the student's thought to the further facts that he is to provide. After the exam, the teacher will read some of the answers as particularly good and discuss the difficulties in the question the class found hardest. Examining is thus part of teaching, as "objective" testing is not. Of course, for a short quiz to see whether an assignment has been read, six or eight true-false or multiple-choice questions are convenient and harmless.

As for grading, it is best done on the scale of A to F or of 1 to 5. These marks are clear to students, teachers, and parents, whereas the verbal accounts favored in some schools are vague compounds of disparate judgments and amateur psychology. No comparisons across time are possible or between reports by the several teachers of a given child. Nor do the figures compiled from multiple-choice scores yield sound results: they are, as we saw, based on coaching and unrelated to genuine knowledge. Numbers can be precise without being accurate, and the national scores that go up or down a few points every few months are only make-believe.

What, then, is to be done? Some measure of performance is needed that will permit comparisons over time and space. The answer is suggested by the word performance: the student must perform an act of sustained thinking, which rules out the check-mark system of tapping a layer of scattered items. The best subjects for a reliable test of the kind wanted are English and mathematics. For the first, a given passage from a real book is to be read and questions on it answered in full sentences; this is to be followed by a brief essay on a related topic assigned. For the second, a series of problems, coupled with definitions to be supplied.

But are these objective tests? Answers of this kind can only be graded by a person—another mind—hence teachers in groups of various sizes, a great many all over the country, must each read a number of papers. Again, is this objective? As shown earlier by the

example of manipulation in making multiple choices, no test can be simultaneously valid and objective in the sense of being judged mechanically. But persons can be trained to be careful and quite uniform graders. This was proved by the College Entrance Examination Board when it was first established to conduct examinations in a dozen or more high school subjects, all written work. In a full-day session, teachers, active or retired (or at times graduate students) were given rules and examples to follow, plus a list of points to look for and values to assign for each particular examination.

A notable advantage of this system is that the quality of the student's work receives attention and credit, instead of the quantity of indifferent, fungible data. For example, the student who clearly knows all the steps for solving a problem but has made a mistake in the last line when copying a number does not get a zero for "wrong answer" but partial credit for what he does know. Similarly, evidence of understanding the English passage, the organization of the ideas in the essay, and the level of the vocabulary used—these signs of lessons well learned and well taught are taken into account and reflected in the grade. It is closer to its object, more "objective" than a bare number.

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