

will gainsay that the pupil's conceptions must be products of his own thinking. A product of the teacher's thinking, or of some one else's thinking, cannot become a part of the child's being without some mental digestion of his own. Every teacher will admit that. Very well, then; in testing the expression must be the child's own representation of this thinking, his representation in language, in motion, in drawing, in writing, in arranging straws or toothpicks, in what not—if not his own, what proof is there that he has been thinking at all, but instead merely memorizing? This is a vital point in testing, and uproots certain evils lurking in the daily tests, even to this verge of the twentieth century. Testing through memory instead of through understanding is an evil very insidious, especially in all representations of thought in language. To make pointed my argument here, I will ask: In every test of work prepared through language, should the teacher persistently and unfailingly require the pupil to use his own language, or should he be ever satisfied with a repetition of the other person's language, through which the pupil was supposed to gather the idea? For example, surely no teacher would test history by expecting or allowing the words of the text. In arithmetic, the clear idea of the rule or definition should be evolved in the pupil's mind before the statement of the rule or definition be memorized, and even then I question the advantage of memorizing some one else's statement of the rule instead of treating the statement as the idea was treated, namely, by evolving. Does anything short of that develop to the limit of possibility the pupil's power of expression? And is there not otherwise danger, too, of slipping by the proof that the idea has been developed? Or by memorizing some one else's definition, has the pupil gained power to define any original idea? A skilful teacher in testing will see to it that the conception of the topic is clear by pinning the pupil down to it relentlessly, and he will not allow the verbatim language of the text, or any approach to it, except where it has been evolved, because he cannot thereby know that the conception is clear, neither will he by so doing develop the power of expression.

I do not contend that memory does not play a large part in school study; indeed, an almost exclusive part in certain exercises, such as in learning the multiplication table, and in committing poetry to memory. Nor that it, with imagination, does not monopolize the activities in the primary grades. But I do contend that a fatal mistake is made when this memory work in any grade means what is known as verbal memory work.

I have thus referred at some length to these three purposes to be kept in view in testing, viz., to ascertain the clearness of the mental grasp, the clearness of expression, and the power gained. In regard to the last, power gained, although it may be to some extent estimated from the other two, yet the only solid test for it, so far as power to think is concerned, is to ask for original thinking, whether in reasoning, imagining, etc. In arithmetic, for example, power gained will be shown by increased ability to understand a new process, or by putting into a test a problem somewhat difficult of solution which the pupils have not seen—one which they cannot solve by merely following a rule or a process drilled into memory. No special tests,

perhaps, are needed to ascertain power gained to express, as all tests should show that.

But the pole star to be kept in view in this work is to see that the test does test. I mean that if the teacher is testing, say the preparation of an assigned lesson, the one thing necessary to be sure of when done is, "Who prepared it and who did not?" There must be a distinct line drawn between the sheep and the goats. If the tests are so applied that the pupils know that only a few are tested, will the indolent or indifferent not neglect the work, hoping to escape by the chance of not being tested. Of course such a thing as spontaneous answering should be ruled out—that is, the answering a question by those who can speak most quickly. It is educational death to the slower—the very pupils who should do most of the answering. And in a test, on anything which all should know, to encourage those ready to indicate it by certain gymnastics, waving their hands, etc., leads, perhaps, to the maximum of physical exercise but the minimum of mental; and proclaims the baleful doctrine that the teacher expects some to fail, whereas he should ever stimulate by showing that he expects and requires all to know it. The only safety is to bring them all to time by testing all. But it may be some young teacher is disposed to ask, "How am I to find time to test each one of a large class?" For answer I say, go to your own inventing power, remembering all the while that each unprepared pupil not identified is so much loss and weakness. Perhaps I might suggest one comprehensive plan which many teachers effectively adopt, namely, when they have taught a fact or a principle instantly to ask those who can state or explain it to rise, one or more of whom they test. This quickly differentiates them, and the teacher deals with any who may not know it as his judgment dictates; but this he must do—see that they get it in some way; let there be no loophole of escape for them. And just here I would interject this caution—do not keep idle or waiting those who have done the work while bringing up those who have not. Let the vanguard attend to something else, perhaps more difficult, exercises or drill in the subject, while the stragglers are struggling into line. Another and opposite caution I would also interject—don't waste school time in telling or even teaching a thing over and over to those whom tests have floored. Simply require them to know what has been reasonably taught. Be inexorable here—not severe, only inexorable. Vain repetition is a crime, it steals time and destroys opportunity. Let the school conviction of coming to time in all exercises, especially in preparing lessons, grow into a habit and stay a habit. Some pupils are careless or inattentive largely because they know that the teacher is "easy," and will explain the thing again and again, while by a little judicious firmness the pupil would brace himself and come to time. What do you think of the plan of keeping the laggards after school until they know what their idleness or inattention caused them to miss? That plan at least has the virtue of protecting the industrious. To my mind this is to be recognized as a truth, that the progress of an honest school cannot be much faster than that of the slowest pupils. The biting truth that the incompetents are dragging down the competents is, I know, ever present to wound the teacher. But the cure for the wound is that the