

Special Papers.

REAL AND SHAM OBSERVATION BY PUPILS.

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It is well known that children from their earliest years, manifest their most important mental and physical powers spontaneously. They walk, talk, look at things, handle things, think and imitate from a natural, internal impulse. With proper opportunities, they learn fast and well without formal instruction.

At first sight it seems unaccountable that this natural condition should be so often overlooked in the schooling of children. Looking farther we shall find the cause of this oversight in the traditional literary methods that have prevailed from ancient days. Long training in the symbols of knowledge only has proved a disqualification in the acquisition of knowledge at first hand. Here I find the most serious obstacle to nature study in the primary schools.

There is no lack of material in the form of leaves, seeds, fruits, vegetables, stones, shells, insects, etc., but there is a lack of understanding as to how they are to be used in educating children, not simply informing them. The observation lesson is confounded with, or made the occasion for, an information lesson, or a language lesson; and there, too frequently, the work ends.

To illustrate. We will say the lesson is on the maple leaf, and every pupil has a leaf. The teacher, holding up her leaf, says, "Tell me something about this leaf." Pupil: "There are five points on it." Teacher: "Who will make a good statement, beginning with 'this leaf?'" Pupil: "This leaf has five points." The teacher writes the sentence on the blackboard, and then says, "Tell me something else about this leaf." Pupil: "It has a stem." Teacher: "Petiole is a good name for the stem. Who will make a good statement, using the word *petiole*?" Pupil: "The leaf has a *petiole*."

So the lesson proceeds to some length, and a variety of thoughts and expressions are said to be drawn from the pupils, and sentences corresponding are written on the blackboard by the teacher. Then the children are told to write out what they have discovered. The results, to a casual observer, are often wonderfully uniform and excellent.

Consider what really has been done. A few of the most intelligent and responsive pupils have become the proxies of the other pupils, have made the investigations and the expressions corresponding to those investigations, and have poured out information for the appropriation of the many pupils always on the watch for labor-saving devices. Thus, the old "pouring-in process" has been transferred from the teacher to the more responsive pupils with no advantage except to those responsive pupils. This is a very deceptive phase of the work. It is unfortunate that so many teachers are deceived by it, all the time thinking they are teaching admirably. They do not perceive that they are allowing their pupils to form the habit of catching expressions and avoiding dependence on their own senses.

The pupils' written descriptions may appear highly commendable; but they are largely memorized statements made by a few pupils; and the benefits that might have been conferred upon all the pupils, by a series of investigations undertaken by themselves, have been lost.

In regard to teaching reading in the primary schools, Mr. Davis, superintendent of Chelsea schools, says: "There must be no memorizing of sentences given by the teacher at any stage. The opportunity presented for the memorizing of sentences or others' thoughts in nature study is still more out of place.

In the study of nature the habit of investigating must be formed. In the case of primary children the work of investigation must not be heavily saddled with language. The letter killeth the spirit. A language lesson may be given on the observation lesson with the greatest advantage, but at another time.

The pupil must examine his own specimens, and express in his own words, as far as possible, what he has discovered by his own senses. From his own object he will get the best description *for him*. It may not be as good as some other; but it will be *sui generis*, of its own kind, and show what the object has to reveal to him. Mr. Bowen, an English writer, says: "The best description of a thing is the thing itself—then a concrete model of it—then a picture—and last of all (certainly the last with young children), a statement in words." Allow the pupil to rely on his own powers; otherwise he will resemble one who learns to play the piano by ear and not by note. He will never go far. The boy who sticks to his notes will become a proficient player, and the boy who relies on his own senses will become an accurate observer, and in due time a learned man.

The teacher's part is to furnish proper opportunities and guidance when necessary. The preponderance of work must always be on the side of investigation and not on the side of language.—*Education*.

WEARINESS OF THE FLESH.

BY SUPT. J. M. GREENWOOD.

Is it not time to call a halt? How much farther will the so-called language exercises and number tomfooleries be pushed by otherwise sensible teachers before our little children are stupified into idiocy? It is the greatest blessing in the world that the resisting power of children is so powerful even against pernicious teaching. This is the saving clause which nature has provided against poisons and intellectual opiates. The idea that a six or seven year old child should be kept hammering on numbers from one to ten the first year it attends school is preposterous in the extreme, and is an insult to the intelligence of an "educated pig." Then, the next year, by grace of the intelligent apothecary of arithmetical nostrums, the child is permitted to go from ten to twenty, and in cases of special dispensation to a hundred. What foolishness run to seed!

Only yesterday I took a little six and-a-half-year old youngster who had never been to school, and whose parents had made no

effort to teach him from books, and while he stood by me with his slate and pencil in hand, I asked him to write "31" for me. He did it. Next I said write "61," and he wrote it immediately. He wrote without hesitation,—11, 21, 31, 41, 51, 61, 71, 81, 91, but not in the order named. When I said now write "101," he laughed and said: "I don't know how;" but he wrote and read promptly all the numbers from 1 to 100, and he had in money a dime, two nickels, and five pennies, and he could read all the dates on these coins; but how he had learned them I do not know.

I asked him what is the half of 9? "Well," he said, the half of 8 is 4, and the half of 10 is 5, and the half of 9 is 4 and $\frac{1}{2}$." Next, I asked, how high was that big fat rat you saw in the yard? He showed the height with his hands, and then replied,— "Nearly four inches." He adds, subtracts, multiplies and divides small numbers up to 50 readily. When I asked him how many quarters in a mile and a half; he said, "6 quarters and no more." In 24 quarters, he then said, "will be 6 miles." Many other similar questions he also answered. When I asked him if he could see 4 quarters in a mile, he said; "No, sir, but I can see that it takes four quarters to make a mile." I suppose when he goes to school that he will be put to work on the number "ten" for a year, and yet he knows as much of ten as is of any use to him.

Children, if they have a chance, even if half way permitted, will do usually four or five times as much in number work as they do. Why have not teachers and principals sense enough to let children do their best? To keep them in school floating like a frog in the tub of water, is a rare refinement of cruelty and robbery that ought not to be tolerated in any civilized community. Do away at once with nine-tenths of all the shoe pegs, tooth picks, marks, dots, beans and other devices for teaching numbers. Illustrations are valuable when needed; but to put the child to inventing illustrations when there is no need of it, is to kill time while the poor teacher is attending to her knitting. It makes me sick at heart to see how trifling, shadowy and illogical is much of the number teaching that is doled out to our children. Ignorantly it is done; but the error is just the same as if were deliberately planned and remorselessly executed.

The language mania is not a whit behind that of number. The little silly sentences are as nearly destitute of thoughts as possible, and on these multitudinous changes are rung with the same little words. A child of any intelligence wants to be making some headway when he studies, and yet it must be confessed that much of the language work is as barren of ideas as a crane's leg is of feathers. If the ingenuity of the language fiends had been set to work on *how not to teach the children to use or learn our language correctly*, a better device could not have been invented, and again I am constrained to exclaim, "How long before deliverance?"—*Journal of Education*.

'Tis the mind that makes the body rich;
And as the sun breaks through the darkest clouds,
So honor peereth in the meanest habit.

—Shakespeare.