

**Teaching Children How to Study.**

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A prominent educationalist of this province, in an address before a teachers' institute, is reported to have said that "in former times the teacher heard the pupil recite the lesson, but that now-a-days the pupil listens to the recitation of the lesson by the teacher." While this remark may not have been intended as a literal expression of the modern trend of education, yet we must concede there is enough truth in the saying to make us pause and study the situation in an honest endeavour to discover, if possible, the causes of these two extremes.

In the rural ungraded schools the multiplicity of classes and other unfavourable conditions may be cited as an excuse for the teacher becoming a lesson hearer. Indeed, many of our most distinguished men owe their early training to such schools as these. On the other hand, the graded city and town schools furnish the teachers with more time for conducting lessons, and in their efforts to simplify, explain and enlarge upon the subjects taught, the mistake has been made of having the teacher do too much and the pupils too little of the studying process.

While it is true that many pupils will make excellent progress in spite of methods used, yet educators are beginning to realize, as never before, the necessity of applying systematic psychologic methods which will develop in pupils the power of independent thought and study to a degree unattainable under either of the above-mentioned methods of teaching. Within the limited scope of the present article, it is the aim to discuss ways and means of accomplishing these results.

Of the two kinds of study—the mechanical or mind-cramming, and the positive or thought-provoking—I shall confine myself to the latter; and in the treatment of this phase of the problem frequent reference will be made to the experimental work along these lines by Miss Lida B. Earhart, Ph. D., of Teachers' College, New York.

After considering the logical basis of the process of the inductive and deductive studying processes, I shall briefly discuss the possibility of securing results from pupils of the elementary grades of our schools. Among the factors involved in systematic study, may be mentioned:

I. The recognition of the problem to be solved. The teacher's ability will here be shown in so intro-

ducing the subject-matter that it presents a real and vital problem to the child. The pupil must make it his own if he is to do serious and profitable work in its solution. In the words of Professor Dewey, "the teacher must psychologize the material," that is, create the situation for the child so that the problem suggests itself to his mind. This problem must be clearly understood by the pupil, even if it involves reflection, reading, consultation, experimentation and observation to accomplish this end. Tentative hypotheses may even at this stage be suggested as positive solutions of this problem.

II. A second factor is the collecting of data bearing upon the problem. The pupil should be trained to select the sources of the material, and, above all, to confine his research to data bearing upon the problem in hand. If the school has no library, the teacher should have a few good works for reference in the schoolroom. It will here be interesting to note that recent regulations have been made in Ontario whereby certain subjects—notably elementary geometry—must be taught without the use of texts, and the school boards are compelled to provide reference libraries in these subjects—thus rendering the mechanical cramming of text-book facts a difficult method of procedure for the incompetent teacher.

III. The material thus gathered should be organized into groups of related ideas. A practical and effective plan is to tabulate the main headings, each having its subordinate points grouped beneath. As a result of II and III, it will be possible for the pupil to formulate a theory which will satisfy the problem.

IV. A fourth element is one of scientific doubt. Pupils should be taught early in life that authors are often apt, consciously or otherwise, to present their case in a one-sided manner. Having collected data from a suitable number of sources, the weighing of the evidence thus adduced furnishes one of the best possible means of developing the pupil's individuality and self-reliance.

V. When the vitality of the data has been decided and the tentative hypothesis formulated, the next logical step is the application of the theory to the concrete situation. If the theory be found faulty or incomplete, it will here be in order to revise it until it meets the conditions of the original problem, or in case the first theory will not work, a