

HOW TO STUDY

AND

TEACHING HOW TO STUDY

BY

F. M. McMURRY

PROFESSOR OF ELEMENTARY EDUCATION IN
TEACHERS COLLEGE, COLUMBIA UNIVERSITY



BOSTON, NEW YORK AND CHICAGO
HOUGHTON MIFFLIN COMPANY
The Riverside Press Cambridge

COPYRIGHT, 1909, BY F. M. MCMURRY

ALL RIGHTS RESERVED

TENTH IMPRESSION

818

TO MY FRIEND
ORVILLE T. BRIGHT
THIS VOLUME IS DEDICATED, AS A
TOKEN OF WARM AFFECTION
AND PROFESSIONAL
INDEBTEDNESS

PREFACE

SOME seven or eight years ago the question of how to teach children to study happened to be included in a list of topics that I hastily prepared for discussion with one of my classes. On my later examination of this problem I was much surprised, both at its difficulty and scope, and also at the extent to which it had been neglected by teachers. Ever since that time the two questions, How adults should study, and How children should be taught to study, have together been my chief hobby.

The following ideas are partly the result of reading; but since there is a meagre quantity of literature bearing on this general theme, they are largely the result of observation, experiment, and discussion with my students. Many of the latter will recognize their own contributions in these pages, for I have endeavored to preserve and use every good suggestion that came from them; and I am glad to acknowledge here my indebtedness to them.

In addition I must express my thanks for valuable criticisms to my colleague, Dr. George D. Strayer, and also to Dr. Lida B. Earhart, whose suggestive monograph on the same general subject has just preceded this publication.

THE AUTHOR.

Teachers College, May 6, 1909.

CONTENTS

PART I

PRESENT METHODS OF STUDY ; NATURE OF STUDY AND ITS PRINCIPAL FACTORS

- I. INDICATIONS THAT YOUNG PEOPLE DO NOT LEARN TO STUDY PROPERLY ; THE SERIOUSNESS OF THE EVIL 3
- II. THE NATURE OF STUDY, AND ITS PRINCIPAL FACTORS 12

PART II

NATURE OF THE PRINCIPAL FACTORS IN STUDY, AND THEIR RELATION TO CHILDREN

- III. PROVISION FOR SPECIFIC PURPOSES, AS ONE FACTOR IN STUDY 31
- IV. THE SUPPLEMENTING OF THOUGHT, AS A SECOND FACTOR IN STUDY 61
- V. THE ORGANIZATION OF IDEAS, AS A THIRD FACTOR IN STUDY 85
- VI. JUDGING OF THE SOUNDNESS AND GENERAL WORTH OF STATEMENTS, AS A FOURTH FACTOR IN STUDY 135

CONTENTS

VII. MEMORIZING, AS A FIFTH FACTOR IN STUDY . . .	161
VIII. THE USING OF IDEAS, AS A SIXTH FACTOR IN STUDY	192
IX. PROVISION FOR A TENTATIVE RATHER THAN A FIXED ATTITUDE TOWARD KNOWLEDGE, AS A SEVENTH FACTOR IN STUDY	220
X. PROVISION FOR INDIVIDUALITY, AS AN EIGHTH FAC- TOR IN STUDY	246

PART III

CONCLUSIONS

XI. FULL MEANING OF STUDY ; RELATION OF STUDY TO CHILDREN AND TO THE SCHOOL	283
INDEX	313

PART I

**PRESENT METHODS OF STUDY; NATURE
OF STUDY, AND ITS PRINCIPAL
FACTORS**

HOW TO STUDY

CHAPTER I

INDICATIONS THAT YOUNG PEOPLE DO NOT LEARN TO STUDY PROPERLY; THE SERIOUSNESS OF THE EVIL

No doubt every one can recall peculiar methods of study that he or some one else has at some time followed. During my attendance at high school I often studied aloud at home, along with several other temporary or permanent members of the family. I remember becoming exasperated at times by one of my girl companions. She not only read her history aloud, but as she read she stopped to repeat each sentence five times with great vigor. Although the din interfered with my own work, I could not help but admire her endurance; for the physical labor of mastering a lesson was certainly equal to that of a good farm hand, for the same period of time.

This way of studying history seemed extremely ridiculous. But the method pursued by myself and several others in beginning algebra at about the same time was not greatly superior. Our text-book contained several long sets of problems which were the terror of the class, and scarcely one of which we were able to solve alone. We had several friends, however, who could solve them, and, by calling upon them for help, we obtained the "statement" for each one. All

these statements I memorized, and in that way I was able to "pass off" the subject.

A few years later, when a school principal, I had a fifteen-year-old boy in my school who was intolerably lazy. His ambition was temporarily aroused, however, when he bought a new book and began the study of history. He happened to be the first one called upon, in the first recitation, and he started off finely. But soon he stopped, in the middle of a sentence, and sat down. When I asked him what was the matter, he simply replied that that was as far as he had got. Then, on glancing at the book, I saw that he had been reproducing the text *verbatim*, and the last word that he had uttered was the last word on the first page.

These few examples suggest the extremes to which young people may go in their methods of study. The first instance might illustrate the muscular method of learning history; the second, the memoriter method of reasoning in mathematics. I have never been able to imagine how the boy, in the third case, went about his task; hence, I can suggest no name for his method.

While these methods of study are ridiculous, I am not at all sure that they are in a high degree exceptional. The most extensive investigation of this subject has been made by Dr. Lida B. Earhart,¹ and the facts that she has collected reveal a woeful ignorance of the whole subject of study.

Among other tests, she assigned to eleven- and twelve-year-old children a short selection from a text-

¹ *Systematic Study in the Elementary Schools*. A popular form of this thesis, entitled *Teaching Children to Study*, is published in the Riverside Educational Monographs.

book in geography, with the following directions:

"Here is a lesson from a book such as you use in class.

Do whatever you think you ought to do in studying this lesson thoroughly, and then tell (write down) the different things you have done in studying it. Do not write anything else."¹

Out of 842 children who took this test, only fourteen really found, or stated that they had found, the subject of the lesson. Two others said that they *would* find it. Eighty-eight really found, or stated that they had found, the most important parts of the lesson; twenty-one others, that they *would* find them. Four verified the statements in the text, and three others said that they *would* do that. Nine children did nothing; 158 "did not understand the requirements"; 100 gave irrelevant answers; 119 merely "thought," or "tried to understand the lesson," or "studied the lesson"; and 324 simply wrote the facts of the lesson. In other words, 710 out of the 842 sixth- and seventh-grade pupils who took the test gave indefinite and unsatisfactory answers. This number showed that they had no clear knowledge of the principal things to be done in mastering an ordinary text-book lesson in geography. Yet the schools to which they belonged were, beyond doubt, much above the average in the quality of their instruction.

In a later and different test, in which the children were asked to find the subject of a certain lesson that was given to them, 301 out of 828 stated the subject fairly well. The remaining 527 gave only partial, or indefinite, or irrelevant answers. Only 317 out of the

¹ *Ibid.*, Chapter 4.

828 were able to discover the most important fact in the lesson. Yet determining the subject and the leading facts are among the main things that any one must do in mastering a topic. How they could have been intelligent in their study in the past, therefore, is difficult to comprehend.

It is, perhaps, unnecessary to collect proofs that young people do not learn how to study, because teachers admit the fact very generally. Indeed, it is one of the common subjects of complaint among teachers in the elementary school, in the high school, and in the college. All along the line teachers condole with one another over this evil, college professors placing the blame on the instructors in the high school, and the latter passing it down to teachers in the elementary school. Parents who supervise their children's studies, or who otherwise know about their habits of work, observe the same fact with sorrow. It is at least refreshing to find one matter, in the much-disputed field of education, on which teachers and parents are well agreed.

How about the methods of study among teachers themselves? Unless they have learned to study properly, young people cannot, of course, be expected to acquire proper habits from them.

The most enlightening single experience I have ever had on this question came several years ago in connection with a series of lectures on Primary Education. A course of such lectures had been arranged for me without my full knowledge, and I was unexpectedly called upon to begin it before a class of some seventy-five teachers. It was necessary to commence

Teachers' and parents' complaints about methods of study.

Method of study among teachers.

speaking without having definitely determined my first point. I had, however, a few notes which I was attempting to decipher and arrange, while talking as best I could, when I became conscious of a slight clatter from all parts of the room. On looking up I found that the noise came from the pencils of my audience, and they were writing down my first pointless remarks. Evidently discrimination in values was not in their program. They call to mind a certain theological student who had been very unsuccessful in taking notes from lectures. In order to prepare himself, he spent one entire summer studying stenography. Even after that, however, he was unsuccessful, because he could not write quite fast enough to take down *all* that was said.

Even more mature students often reveal very meager knowledge of methods of study. I once had a class of some thirty persons, most of whom were men twenty-five to thirty-five years of age, who were college graduates and experienced teachers. One day I asked them, "When has a book been read properly?" The first reply came from a state university graduate and school superintendent, in the words, "One has read a book properly when one understands what is in it." Most of the others assented to this answer. But when they were asked, "Is a person under any obligations to judge the worth of the thought?" they divided, some saying yes, others no. Then other questions arose, and the class as a whole soon appeared to be quite at sea as to the proper method of reading books. Perhaps the most interesting thing was the fact that they seemed never to have thought seriously about the matter.

Fortunately Dr. Earhart has not overlooked teachers' methods of study in her investigations. In a *questionnaire* that was filled out by 165 teachers, the latter were requested to state the principal things that ought to be done in "thinking about a lesson." This was practically the same test as was given to the 842 children before mentioned. While at least twenty different things were named by these teachers, the most frequent one was, "Finding the most important points."¹ Yet only fifty-five out of the 165 included even this. Only twenty-five, as Dr. Earhart says, "felt, keenly enough to mention it, the necessity of finding the main thought or problem." Forty admitted that they memorized more often than they did anything else in their studying. Strange to say, a larger percentage of children than of teachers mentioned finding the main thought, and finding the more important facts, as two factors in mastering a lesson. Water sometimes appears to rise higher than its source.

About two-thirds of these 165 teachers² declared that they had never received any systematic instruction about how to study, and more than half of the remainder stated that they were taught to memorize in studying. The number who had given any careful instruction on proper methods of study to their own pupils was insignificant. Yet these 165 teachers had had unusual training on the whole, and most of them had taught several years in elementary schools. If teachers are so poorly informed, and if they are doing so little to instruct their pupils on this subject, how can the latter be expected to know how to study?

¹ *Ibid.*, Chapter 5.

² *Ibid.*, Chapter 5.

§ The prevailing definition of study gives further proof of a very meager notion in regard to it. Frequently during the last few years I have obtained from students in college, as well as from teachers, brief statements of their idea of study. Fully nine out of every ten have given memorizing as its nearest synonym. The prevailing definition of study.

It is true that teachers now and then insist that studying should consist of *thinking*. They even send children to their seats with the direction to "think, think hard." But that does not usually signify much. A certain college student, when urged to spend not less than an hour and a half on each lesson, replied, "What would I do after the first twenty minutes?" His idea evidently was that he could read each lesson through and memorize its substance in that time. What more remained to be done? Very few teachers, I find, are fluent in answering his question. In practice, memorizing constitutes much the greater part of study.

The very name recitation suggests this fact. If the school periods are to be spent in reciting, or reproducing, what has been learned, the work of preparation very naturally consists in storing the memory with the facts that are to be required. *Thinking periods*, as a substitute name for recitation periods, suggests a radical change, both in our employment of school time and in our method of preparing lessons. We are not yet prepared for any such change of name.

Consider finally the literature treating of study. Certainly there has never been a period when there was a more general interest in education than during the last twenty years, and the progress that has been

made in that time is remarkable. Our study of the social view-point, of child nature, of apper-⁸
 ception, interest, induction, deduction, cor-
 relation, etc., has been rapidly revolutionizing
 the school, securing a much more sympathetic govern-
 ment of young people, a new curriculum, and far
 more effective methods of instruction. In consequence,
 the injuries inflicted by the school are fewer and less
 often fatal than formerly, while the benefits are more
 numerous and more vital. But, in the vast quantity of
 valuable educational literature that has been published,
 careful searching reveals only two books in English,
 and none in German, on the "Art of Study." Even
 these two are ordinary books on teaching, with an
 extraordinary title.

The subject of memorizing has been well treated in
 some of our psychologies, and has received attention in
 a few of the more recent works on method. Various
 other problems pertaining to study have also, of course,
 been considered more or less, in the past, in books on
 method, in rhetorics, and in discussions of selection of
 reading matter. In addition, there are a few short but
 notable essays on study. There have been practically,
 however, only two books that treat mainly of this sub-
 ject,—the two small volumes by Dr. Earhart, already
 mentioned, which have been very recently published.
 In the main, the thoughts on this general subject that
 have got into print have found expression merely
 as incidents in the treatment of other themes — com-
 ing, strange to say, largely from men outside the teach-
 ing profession — and are contained in scattered and
 forgotten sources.

Thus it is evident not only that children and teachers are little acquainted with proper methods of study, but that even sources of information on the subject are strangely lacking.

The seriousness of such neglect is not to be overestimated. Wrong methods of study, involving much unnecessary friction, prevent enjoyment of school. This want of enjoyment results in ^{Seriousness} of this evil. much dawdling of time, a meager quantity of knowledge, and a desire to quit school at the first opportunity. The girl who adopted the muscular method of learning history was reasonably bright. But she had to study very "hard"; the results achieved in the way of marks often brought tears; and, although she attended the high school several years, she never finished the course. It should not be forgotten that most of those who stop school in the elementary grades leave simply because they want to, not because they must.

Want of enjoyment of school is likely to result, further, in distaste for intellectual employment in general. Yet we know that any person who amounts to much must do considerable thinking, and must even take pleasure in it. Bad methods of study, therefore, easily become a serious factor in adult life, acting as a great barrier to one's growth and general usefulness.