TEACHERS COLLEGE, COLUMBIA UNIVERSITY CONTRIBUTIONS TO EDUCATION, NO. 97: IMPROVEMENT AND THE DISTRIBUTION OF PRACTICE

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ROBERT ALEXANDER CUMMINS

TEACHERS COLLEGE, COLUMBIA UNIVERSITY CONTRIBUTIONS TO EDUCATION, NO. 97: IMPROVEMENT AND THE DISTRIBUTION OF PRACTICE



Improvement and the Distribution of Practice

By

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R. A. C.



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Improvement and the Distribution of Practice

INTRODUCTION

It is the purpose of this monograph to report measurements of learning, especially by school children under ordinary classroom conditions, and with special reference to the distribution of time given to practice. The particular comparison made is between (1) a series of practice-periods approximately equal in length, and

(2) a series of practice-periods decreasing progressively in length.

Some results obtained by Ebbinghaus ('85, pp. 110 ff.) and Jost's ('97) conclusions that "in the case of two associations of equal strength, but of different ages, a new repetition has a greater value for the older of the two, and that the older association weakens less with disuse in a given time," suggest that the second form of distribution may be the more favorable in the case of forming serial connections with senseless material. General theory also suggests that such a distribution might prevent wasteful overlearning in both initial practice and reviews in the case of a group of bonds which form a limited unit of instruction, as, for example, learning a new word in spelling, a vocabulary in a foreign language, or the anatomy of an animal. Whether such a distribution would prove essentially more favorable in such miscellaneous work as improving penmanship, oral speech, computations of various kinds, and the like, is more problematical.

The experiments to be reported here concern:

- A. The learning of French vocabularies by adults.
- B. The learning of geographical and historical facts by school children, after the following manner: A brief condensed summary of the facts was studied. The knowledge thus gained was measured by giving the summary, with certain important words omitted, as a completion test.
- C. Improvement in single-column addition by school children and by adults.
 - D. Improvement in short division by school children.