

SCHOOL EFFICIENCY
A CONSTRUCTIVE STUDY
PAUL H. HANUS

SCHOOL EFFICIENCY SERIES
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Edited by PAUL H. HANUS

School Efficiency

A Constructive Study Applied to New York City

Being a Summary and Interpretation of
the Report on the Educational Aspects
of the School Inquiry

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SES: SE—I

PREFACE

DURING the year 1911-1912 I was placed in charge of the educational aspects of the school inquiry undertaken by the Committee on School Inquiry of the Board of Estimate and Apportionment of the City of New York. The inquiry covered thirteen months in all — from June 1, 1911, to July 1, 1912.

My report in its final form consisted of two parts: Part I comprising the Letter of Transmittal, the necessary Introduction to the entire report, and "The Report as a Whole" — the unification and interpretation of all the work done on the educational aspects of the School Inquiry, including summaries of our principal findings and recommendations; and Part II, consisting of the several reports of my associates on their separate fields of inquiry. Part I is reproduced in the present volume without change in substance and with only one considerable (but unimportant) change in form, namely, the transference of the statistical portion of the Introduction to an appendix.

Most of the first drafts of the reports of my associates could not be ready for the printer before the last week in June, 1912; and as our work in New York was to cease on July 1st, it was impossible for me to prepare "The Report as a Whole" before that date. It was manifestly desirable, however, to have our principal findings and recommendations easily accessible and in as brief a compass as possible. Accordingly, at my suggestion, my associates and I prepared digests of their reports at the time when their reports first went to the printer. These digests together constituted what we called a "Joint Report," and formed a considerable portion of Part I of my report as originally submitted to the Committee.

The entire first draft of my report was in the printer's hands by July 1, 1912. Unnecessary and long delays, for which the Committee were responsible, occurred in sending me first and second galley proof and page proof. I wished to finish "The Report as a Whole" and substitute it for the "Joint Report" — the latter being an expedient that had been adopted at a time when no other course seemed possible. But I could not finish "The Report as a Whole" until I had the page proof of the reports of my associates; and it was December before this page proof was in my hands. During that month I held the page proof in order to complete "The Report as a Whole." When it was finished the Committee assented to my proposal to substitute it for the "Joint Report."

Because Part I of my report presented a complete survey of our work, together with summaries of our principal findings and recommendations, I naturally suggested and finally urged that the Committee publish Part I in advance of Part II; but the Committee chose to disregard my suggestion and later my urgent request. Dismembering "The Report as a Whole," they published in a small pamphlet the first pages and the concluding paragraph of that document; and then printed successively each of the reports (with one exception, Professor Moore's report which the Committee had "rejected") constituting Part II, together with an excerpt from "The Report as a Whole" bearing on each report. They thus dismembered the entire report; and it was not until long afterward that the whole of Part I was published as a single document (under date of July 1, 1913; received by me more than a month later).

For most of the details summarized in this volume I am indebted to the eleven men who were my associates in the inquiry. I have even used their own phrases here and there. Nevertheless I alone am responsible for the form into which I have cast the material drawn from their reports. I am also completely responsible for the substance as well as for the form of some of the recommenda-

tions, particularly for most of the recommendations that problems be referred to the Bureau of Investigation and Appraisal for further study; the recommendation that such a Bureau be established originated however with Professor Elliott. (See his volume — "City School Supervision as Exemplified in New York City," in this series.)

Each of the volumes of the School Efficiency Series is a reproduction of one or more of the monographs (reports) of my associates. The changes (if any) made in the monographs for publication in the School Efficiency Series are plainly stated in the Preface to each volume.¹

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¹ It seems to me worth while to state here, once for all, the facts concerning the widely advertised pretensions of a person who wanted to share in the conduct and results of the inquiry. For this purpose, I cite the following paragraph from the Introduction to my report (and hence also to this volume, see p. xxvi):

"During the progress of the inquiry we have repeatedly received oral and written suggestions and memoranda concerning the inquiry from one of the directors of the Bureau of Municipal Research. [This Bureau is not a part of the City Government. It is an independent organization supported by private funds.] At first these suggestions and memoranda were welcomed and received with interest. But it gradually became apparent that these communications, in large part, represented a spirit and methods widely divergent from our own; hence they were of diminishing interest to us; and since November, 1911, we have pursued our work without reference to them."

The spirit of these communications and the methods they represented were of the kind afterward embodied in the two hundred and forty-one questions on Professor Ernest C. Moore's report, which are printed in the appendix to Professor Moore's volume in this series ("How New York City Administers its Schools") so as to give any one who may be interested in such questions access to them.

Later this same director of the Bureau of Municipal Research secured — without my knowledge until long afterward — the unrevised first galley proof of the report of my associates and myself as it came from the printer, and at once made elaborate preparations to "edit" it! Of course this attempt of his to meddle in our affairs had to be defeated — and it was.

INTRODUCTION

MY work on the educational aspects of the School Inquiry in New York began on June 1, 1911. But before that time steps had been taken to secure the staff of specialists needed for the inquiry. Nominations of specialists to participate in the inquiry were made, at different times, by me to President Mitchel, and were approved by him; and, after December 27, 1911, to President Miller, and were approved by him.¹ These specialists were assigned to their several fields of inquiry as soon as they were appointed. Each of them was also informed that, in addition to his being held responsible for results in his particular field, his work and report would, as far as practicable, be subjected to the criticism of all.

At the time when correspondence with the specialists we needed began, it was found that most of them could not be secured for continuous service because they were already committed to their regular work at home for the following year, and had also made the usual additional engagements that such men in the educational field of service habitually accept.² As the inquiry must go on, it was clear that we must content ourselves with as much of their time as the men could give, with the proviso, however, that each of them should give at least six weeks of service in all.

¹ President Miller had become Acting Chairman of the Committee on School Inquiry on account of President Mitchel's illness. President Mitchel resumed the Chairmanship in April, 1912.

² Only two members of the staff — Professor Hanus and Dr. Bachman — were on the ground continuously during the entire period of the inquiry. Professor Ballou was in continuous service commencing August 12, 1911.

President Mitchel had informed us that there was uncertainty about the continuance of the inquiry beyond December 31, 1911, although it was expected that the inquiry would be continued. Hence it was necessary to secure the specialists on the staff and plan their work with that in mind. It was evident then (and it has been ever since) that, because of the magnitude and complexity of the New York City school system and the time limits to which the inquiry was restricted, even if it should continue for a year, to do any satisfactory work it would be necessary to limit the general scope of the inquiry, and also to limit the work to be done within each field. And this was stated to President Mitchel.

It was evident also that a detailed plan for the inquiry could be made only after a general survey of the field had been undertaken, and after the conditions under which the work must be carried on were known. A provisional plan was, however, submitted to President Mitchel on June 14, 1911, and met with his approval. This plan was revised and submitted to him again on July 10, 1911, and again met his approval. The final form assumed by the inquiry is substantially the plan of July 10.¹

Meanwhile, President Mitchel had told us that he would suggest certain investigations which he hoped we would be able to undertake without disadvantage to the broader aspects of the inquiry as planned; and the work we have undertaken in response to these suggestions was accordingly added to the plan of July 10.

The work in one field of the inquiry as originally planned was suspended for a time (September, 1911, to January, 1912) owing to Professor Elliott's illness; and one important field had to be abandoned altogether because the specialist who was invited to report on the City Training Schools for Teachers and had signified his intention of accepting our invitation, found it impossible at a late date,

¹ See pages XXIV, XXV.

to undertake this work. Efforts to find a suitable successor to him were continued until March, 1912, but without success. Our inquiry into the training schools and after-training of teachers therefore had to be abandoned.

As already stated, the inquiry began on June 1, 1911; it covers three fairly distinct periods of time.

First. From June 1 until about the middle of August. During this period a general survey of the school system was made, and the plan of the inquiry which had been approved was developed; work on that plan and several inquiries suggested by President Mitchel were begun.

Second. From about the middle of August till the second week of November, during which work on the budget of the Board of Education for 1912 occupied nearly the whole of our time; together with the period of uncertainty about the continuance of the inquiry, extending to the last week in December, 1911. By November the question whether the inquiry should be continued beyond December had become important. Although the Committee, under date of November 29, 1911, requested me to continue the inquiry as planned until July 1, 1912, the possibility of securing the necessary funds was not settled until December 20, when we were directed to go on with the work. (The letter informing us that the funds were secured did not reach us, however, until December 27.) The staff continued its work during this period of uncertainty, but it was manifestly impossible to proceed with any extension of the scope of the inquiry beyond that already assumed prior to November, 1911. During the period of uncertainty, also, our efforts were naturally directed chiefly to bringing to as definite a conclusion as possible the partial results we had been able to achieve. Toward the end of this period, also, President Mitchel fell ill.

Third. Under date of December 20, 1911, we were directed to proceed, and were informed that, in consequence of President Mitchel's illness, President Miller had become Acting Chairman of the Committee on School In-

quiry; and the third period of the inquiry extends from that date to the present time, May, 1912. During this third period, the work as planned during the first period, modified as circumstances required, together with such work on the questions suggested by President Mitchel (referred to above) as we have been able to undertake, has proceeded uninterruptedly; during this period of concentration on the inquiry as planned much the greater part of the work with which this report deals was done.

INQUIRY INTO PROMOTION, NON-PROMOTION, AND
PART TIME

Our first efforts were directed to an inquiry into certain factors affecting promotions and non-promotions in the elementary schools (including "part time"), when the inquiry began on June 1, in accordance with instructions from President Mitchel, transmitted through Mr. Burdette G. Lewis. A detailed description of this inquiry itself is given in Part II of this report.¹ Its most important results are given in the present volume pages 28-34.

INQUIRIES SUGGESTED IN PRESIDENT MITCHEL'S
LETTER OF JUNE 14, 1911

On June 14, 1911, a letter was received from President Mitchel in which he suggested investigations he hoped we could make in time for the budget hearings on the Board of Education's estimate for 1912. This letter also asked "whether or not the furnishing of this information will

¹ Dr. Bachman's report on Promotion, Non-promotion and Part Time.

As stated in the preface, it was my plan to have our report to the Committee consist of two parts: Part I to comprise the subject-matter of the present volume; Part II to consist of the reports of my associates. Hence the reference to "Part II of this report."

defeat plans which you have in mind for the broader inquiry."

President Mitchel's letter asked for an inquiry into the following topics:

(a) Additional teachers needed to take care of the annual increase of pupils.

(b) Additional teachers needed to do away with part-time classes, and concerning the alleged evil of part-time classes.

(c) The advantages of the consolidation of classes.

(d) The possible advantages of increasing the number of intermediate schools, and the attitude of the Board of Education toward such increase.

(e) The method adopted by the Board in determining the number of special teachers required.

(f) The results of departures from the estimates in the recommended budget of last year.

(g) The influence of visiting teachers on decreasing non-promotion.

(h) The basis adopted by the Board of Education in determining the largest practical size of high-school classes.

(i) What trust funds could be used to offset the estimated budget for 1911-1912.

(k) Whether money enough is spent on attendance officers' work, and the difference of method in the work of attendance officers in the different districts.

(l) The facility with which teachers absent themselves from school and entail a heavy bill for substitutes.

The wide range of questions in this letter necessitated careful study—especially the possibility of answering the questions in view of the plan of the inquiry already approved, the time for the inquiry, and our financial resources.

It was soon evident that to answer the first question alone would require a larger staff and cost a larger sum of money than was at our disposal.¹

¹ We were informed by an official of the Finance Department that his department had under consideration the cost of tabulating

Similarly, to determine the number of special teachers needed on the basis of the actual number of teachers in the service needing the assistance of special teachers and the number of new teachers actually needing such assistance would require a large amount of tabulation of data and a correspondingly large clerical force.

Further study of President Mitchel's questions convinced us that it would be impossible to answer them by the time of the budget hearings on the Board of Education's estimates for 1912; that to answer these questions ourselves by December would probably also be impossible even if we devoted our entire time to them. We accordingly suggested to President Mitchel that he send his questions formulated somewhat differently to President Winthrop of the Board of Education; and we stated our belief that questions that could not be answered in this way could not be answered by direct investigation by our staff.

President Mitchel doubtless approved these suggestions; for he sent a letter dated July 11, 1911, to President Winthrop covering the questions referred to. This letter asked for a reply by September 1, 1911. On that date Mr. Lewis brought President Winthrop's reply to us; but without instructions as to further procedure.

President Winthrop's letter did not give definite answers to several questions, and we accordingly prepared a series of supplementary questions on President Winthrop's answers for such use as the Committee might wish to make of them. No direct use was made of these supplementary questions by the Committee, so far as we know; but some of the questions subsequently formed part of further investigations already under way or planned for by us.

Although we could not attempt to answer the questions in President Mitchel's letter, we have worked out the

the data required for such a purpose as was indicated in Question (a), and that the estimated cost would be ten thousand dollars (\$10,000).

method whereby the answers to several of them could be obtained — those questions, namely, relating to

Estimating the need of elementary school teachers.

Intermediate schools.

Estimating the need of high-school teachers ("The largest practical size of high-school classes").

The compulsory-attendance service.

— and the most important results of our investigation of these questions will be found in the present volume; the detailed reports of the investigation will be found in Part II of this report.¹

WORK ON THE BUDGET

In August we were told that President Mitchel, who was in Europe, would expect us to examine the budget requests of the Board of Education with a view to supplying the information required to test the validity of the Board's requests at the budget hearings in October.

A preliminary study of the budget of the previous year was made pending the receipt of the budget for 1912. The 1912 budget did not reach our office until about the middle of September. It was manifestly impossible to attempt an adequate analysis of the entire budget of the Board of Education, or even to collect the necessary information on which such an analysis must be based. We² decided, therefore, to restrict the scope of our examination of the budget to certain items in the General Fund, and further to limit our study of those items to the increments asked for. We were aware that, even with these restrictions, complete data for our examination of the budget would not be available. We proceeded, however, as carefully as we could. We made a provisional report recommending

¹ See last paragraph of the note on page XVIII.

² Professor Hanus and Dr. Bachman were the only members of the staff available for this work; although Dr. Burks gave some assistance apart from his report, mentioned below.

certain reductions in the estimates of the Board of Education and certain other provisional reports; but because of our inadequate data we proceeded no further. The reductions recommended are summarized in the following table:

ELEMENTARY SCHOOLS: NEW TEACHERS

Term	Number Re- quested	Number Recom- mended	Amount Requested	Amount Recommended	Reduction Recommended
Fall Term, 1911 (Schedules Nos. 6 & 9)	568	224	\$425,250.00	\$154,860.75	\$270,389.25
Spring Term, 1912 (Schedule No. 7) . .	278	11	169,536.16	6,523.33	163,012.83
Fall Term, 1912 (Schedule No. 8) . .	414	276	76,910.77	45,719.45	31,191.32
Total	1,260	510	\$671,696.93	\$207,103.53	\$464,593.40

ATTENDANCE OFFICERS: NEW

Schedule No. 1	20	0	\$18,000.00	000	\$18,000.00
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VISITING TEACHERS: NEW

Schedule No. 1	25	0	\$25,000.00	000	\$25,000.00
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EVENING SCHOOLS: EXTENDING THE TERM

Schedule No. 10	\$14,564.00	000	\$14,564.00
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Total reductions recommended					\$522,157.40
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The other reports on the budget for 1912 were: Estimated Need of Elementary School Principals; Analysis and Criticism of Method Used to Estimate the Need of Elementary School Teachers for 1912; Estimated Need of Elementary School Teachers for 1912; Estimated Need of Kindergarten Teachers for 1912; and Estimated Need of Manual Training and Cooking Equipment for 1912; and a report by Dr. Burks on the Compulsory-Attendance service. These reports were filed with the Committee on School Inquiry.

In addition to our examination of the budget we were asked to prepare for President Mitchel's use a series of questions on each item of the budget intended to bring out at the hearings the information used by the Board of Education as the basis of its estimates. These questions were prepared and are filed with the Committee on School Inquiry.

In order to give the Board of Education and its officers an opportunity to prepare themselves to answer the questions likely to be asked at the budget hearings, we formulated a letter to be sent by President Mitchel to President Winthrop of the Board of Education, notifying him of the kind of information the Board of Estimate would require at the hearings; and this letter was sent by President Mitchel on October 2, 1911.¹

Meanwhile, in July, letters asking for suggestions and comments on aspects of the school system most requiring attention had been sent to the City Superintendent of Schools, each of the eight Associate Superintendents, each of the twenty high-school principals, each of the four members of the Board of Examiners, and to a few of the school commissioners (members of the Board of Education), in order to ascertain the range and kind of thought given to the problems of the school system by those intrusted with their solution. The replies to these letters as they were received were analyzed, and a card catalog of their contents made by Mr. Abbott.²

Many of these replies contained fruitful suggestions; and some of them which lay directly in the fields of inquiry assigned to the coöperating specialists have been duly considered.

Meanwhile, also, a study of the course of study for the elementary schools and of the high schools was begun and was carried forward with interruptions until consideration

¹ Filed with the Committee on School Inquiry.

² Mr. Allan Abbott, Head of the Department of English in the Horace Mann School, who served as Secretary to the staff from June 19 to August 12.

of the budget, just described, commenced. Constant delay was experienced in getting material that was needed for our study of both elementary and high-school courses of study owing largely to the absence of teachers, principals, and superintendents from their schools in vacation time. Gradually, however, information was collected from a dozen cities, and this information has been used in our study of the courses of study described in this report.

Meanwhile, also, in September, letters had been sent to each member of the Board of Superintendents and Board of Examiners, and to each District Superintendent, each high-school principal, and to eighty-three elementary-school principals, asking them certain questions covering the official and voluntary reports on their work made to the Board of Superintendents, or to the Board of Education, and intended especially to ascertain how much independence and initiative and how much coöperative activity there is in the supervisory and executive staff of the school system. The replies to these letters have been studied, and appropriate use has been made of them by the specialists whose fields of inquiry they cover.

The following table gives the list of specialists engaged on the inquiry, the field of work assigned to each, together with a general statement concerning the length of his service and whether such service was continuous or otherwise. This table conforms closely to the plan of the inquiry approved on July 10, 1911:

PAUL H. HANUS, Professor of Education, Harvard University.

In charge of Educational Aspects of School Inquiry. Continuous Service.

FRANK P. BACHMAN, Assistant Superintendent of Schools, Cleveland, Ohio.

Statistical studies pertaining to the Needed Number of Elementary School Teachers, Promotions and Part Time, Intermediate Schools. Continuous service commencing June 5, 1911.

EDWARD C. ELLIOTT, Professor of Education, University of Wisconsin.

Organization and methods of the Supervisory Staff, including the Board of Superintendents, District Superintendents; Di-

rectors of Special Branches; Board of Examiners. Service, at intervals; discontinued on account of illness commencing in September; resumed in January, 1912.

FRANK M. McMURRY, Professor of Elementary Education, Teachers' College, Columbia University.

Teachers and teaching in the elementary schools, together with the supervision of their schools by the principals. Also (after December, 1911) elementary school course of study. Service at intervals.

JESSE D. BURKS, Director of the Bureau of Municipal Research, Philadelphia.

Compulsory-attendance service. Service at intervals.

HERMAN SCHNEIDER, Dean of the College of Engineering, University of Cincinnati.

Vocational schools. Service at intervals.

FRANK W. BALLOU, Director of School Affiliation and Assistant Professor of Education, University of Cincinnati.

High school organization and administration. Continuous service commencing August 12, 1911.

ERNEST C. MOORE, Professor of Education, Yale University (now of Harvard University).

Board of Education and Local School Boards. Almost continuous service commencing January 17, 1912.

CALVIN O. DAVIS, Assistant Professor of Education, University of Michigan, and Inspector of High Schools.

High-school courses of study (except commercial courses). Continuous service for about seven weeks from January 2, 1912.

FRANK V. THOMPSON, Assistant Superintendent of Schools, Boston, Massachusetts.

High School of Commerce, Commercial High School, and commercial courses in high schools. Service at intervals commencing January 15, 1912.

HENRY H. GODDARD, Director Department of Psychological Research, New Jersey Training School for Feeble Minded Boys and Girls.

Ungraded classes. Service at intervals.

STUART A. COURTIS, Head of Department of Science and Mathematics, Detroit Home and Day School, Detroit.

The Courtis tests in arithmetic for about 30,000 children in the 4A-8B grades of the elementary schools and in at least one high school. Service at intervals.

The last five specialists named above were assigned to duty as soon as possible after we were directed, under date of December 20, 1911, to proceed with the inquiry. At