# MEASUREMENT AND ADJUSTMENT SERIES EDITED BY LEWIS M. TERMAN

# CLASSROOM ORGANIZATION AND MANAGEMENT

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A SMALL cloud may hide both sun and moon," some unknown Danish poet long ago observed - and handed on to his people a figure of speech that has become proverbial. Its universal significance is patent. But nowhere is the figure more immediately applicable than to the experience of the classroom teacher, where very real inspiration is with tragic frequency obscured by inability to manage detail. Lack of scientific control of any detail of the classroom environment or procedure may all too effectively eclipse the teaching aim. The successful teacher, learning this truth by experience or through the vicarious experience of her instructors, is coming to give thoughtful attention to the planning of efficient methods of performing every part of her work. To this end she analyzes her teaching problem in its entirety as well as in detail, and seeks out whatever knowledge is available toward its solution. Because author and publishers believe that Classroom Organization and Management will encourage such habits of thought and provide a background of knowledge for them, they take pleasure in offering it to all concerned with increasing the effectiveness of classroom teaching to teachers in training, teachers in service. supervisors, and school administrators.

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#### PREFACE

This book is the outgrowth of a course on classroom management that has been in process of development at the University of Chicago for a period of ten years, during which time the material has been tried out in classes, reorganized, and tried out again until, after four complete revisions, it has reached its present form.

The problems treated have been determined by the implications of a definition, by the content of texts, by the criticisms and suggestions of departmental executives, and by experimental teaching. Although the book has perforce developed in a local situation, the problems have been selected and discussed from the first with general needs in mind. Moreover, they have been selected with a view to the needs of both elementary- and secondary-school teachers. Experimentation shortly indicated that the principles of management are so nearly alike for the two groups that separate discussions of the same problem were seldom required.

Classroom management is herein defined as dealing with those duties of classroom teachers that lie outside the field of instructional methodology, which in turn is defined as the direction of learning in school subjects. Those classroom tasks, therefore, that are not directly involved in the guidance of learning, in the mastery of curriculum units, are regarded as belonging within the scope of the book. Classroom management thus defined does not overlap the domain of methods. It parallels and supplements it. It deals, in a word, with the extra-instructional activities of the teacher.

The method of treatment is both theoretical and practical. It is assumed that present-day teachers and supervisors desire to know not only the how but also the why of classroom management. They want more than an unsupported

opinion or a rule of thumb. Fundamental issues are therefore critically weighed in the light of quantitative evidence, of which there is now a large accumulation. Thus are the principles derived whose application is recommended and described in detail.

The purpose of the book is twofold: (1) To help teachers, prospective and in service, to solve a set of perplexing class-room problems that, next to the problems of method, are their greatest concern; (2) to provide school supervisors with a critical background and scientific results relating to classroom management.

The author's indebtedness is too vast and varied for detailed acknowledgment. He has drawn heavily from the valuable contributions of many investigators. His debt to them will be sufficiently indicated, perhaps, by the scores of references that appear throughout the book. Also, during the decade, he has constantly profited from the reactions of the students who have boldly ventured to invest their time and effort in the course known as Education 208. There have been exultant days in the classroom when student demeanor seemed to confirm the value of the material or the mode of presentation; there have been disconsolate days as well, when the dead weight of silence and indifference provided an eloquent hint of inadequacy and impracticality.

In particular is the author under deep obligation to Professor Charles H. Judd and Professor William S. Gray for constructive criticisms of his outlines at various stages of their development and for similar criticisms of the manuscript; to Professor Guy T. Buswell and Professor Lewis M. Terman for their detailed comments on the manuscript chapter by chapter; to Dr. A. S. Otis and Dr. J. S. Orleans for suggestions relating to the organization of selected chapters; and to Professor Joseph Roemer for a critical reading of the chapter on extracurricular activities.

This treatise on classroom management, heretofore confined to the lecture room, is now made available to a wider audience of teachers in the hope that it will bring them a trifle nearer to the attainment of that unattainable goal, the scientific perfection of their teaching skill.

F. S. B.

### **EDITOR'S INTRODUCTION**

For several years I have hoped that it would sometime be possible to include in the Measurement and Adjustment Series a new type of textbook in classroom management. is generally agreed that a course in this subject, somewhere in the training of the prospective teacher, is very desirable if not almost indispensable. However competent the teacher may be as a classroom instructor, her professional success will depend in no small degree upon the manner in which she handles a great variety of problems which are not in the strict sense of the term pedagogical. With the growing recognition of the school's responsibility for providing a suitable environment in which the child shall live as well as learn, the problems of classroom organization and management are assuming ever greater importance. Indirectly, moreover, they greatly influence the effective results of instruction itself.

Although a few meritorious texts have been produced in this field, I think it is not unfair to say that their average quality has been far from satisfactory. Some of them go to unnecessary lengths to provide the teacher with rule-of-thumb procedures in handling school routines. Some are too vague and too general. Some are objectionably "preachy." Some deal largely with trivialities that might better be left to the teacher's common sense. Hardly any of them, even in the treatment of the more important issues, give the student a satisfactory orientation in the investigational literature dealing with the problems under discussion. None has taken full advantage of the contributions which recent developments in educational measurement are making to the problems of classroom organization and control.

The text here offered differs radically from its predecessors both in content and method. It covers about all of the usual ground that is worth covering, and does it in such a way as to give the student a true appreciation of the scientific principles underlying the procedures recommended. Much of its material, especially that dealing with measurements, has been ignored or scantily treated in earlier books in this field. Indeed, the present text has been written largely from the point of view provided by the testing movement, and in this respect it is unique. I am happy that the Measurement and Adjustment Series is able at the present time to offer such a text — one which deals with the fundamentals of the subject in a manner so scholarly and yet so practically helpful.

LEWIS M. TERMAN

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# CLASSROOM ORGANIZATION AND MANAGEMENT

#### CHAPTER ONE

#### THE FIELD OF CLASSROOM MANAGEMENT

- 1. What is the difference between the field of instructional methods and that of classroom management?
- 2. Are the methods of scientific management applicable in both fields?
- 3. Is a program of scientific control in education and industry injurious to human welfare?

THERE has existed, and there still exists, a great deal of uncertainty about the field of classroom management and consequently about the emphasis that should be placed on such a course in the training of teachers. Some educational experts would concede it no place in the sequence of courses regarded as foundational for the preparation of teachers; others take a different view.

The general attitude of the writer in regard to this controversial question has been expressed elsewhere as follows:

For many years books on classroom management have been appearing sporadically, but their appearance has not generally stirred the interest of educators, and their popularity has been fitful indeed. The explanation seems to be that classroom management has not yet completely won its place as a member in good standing of the family of subjects in the teacher-training curriculum. The reason is fairly obvious. The first requirement for the success of this subject is a set of clearly defined problems fundamentally important to teachers, a requirement that has not yet been satisfactorily met. Classroom management has never been able to settle its boundary disputes with instructional methodology on the one hand and school administration on the other. Methods of teaching and school administration have boldly and incontinently invaded

its preserves, with the result that the subject has often assumed the aspect of a man without a country. Moreover, it is safe to say that these invasions will continue unabated until the boundary disputes are settled. In the opinion of the writer, courses in instructional methodology have a sufficient task if they confine themselves to the general and special methods of directing the learning of the child, the problems involved in the presentation and mastery of curriculum units. To classroom management, then, would be assigned such problems as the classification of pupils; the construction, revision, and differentiation of courses; the use of standardized tests; the construction and administration of new-type tests; the assignment of marks and the compilation of records; the organization of proper routine; and the solution of disciplinary problems. If the experts in school administration claim some of these problems for their own, the answer is that classroom teachers must share in all these problems and should be directly trained to meet them.1

The field of instructional methods. The argument in the above passage turns upon the definition of method and the division of labor in training curricula. Method in the field of instruction has been variously defined. For many years it was quite commonly understood that a method of instruction is a mode of presentation of subject matter. emphasis was on teacher activity and material to be learned. Latterly there has been a shift of emphasis, as reflected in the definition that a method of instruction is a mode of directing the learning activities of the child. For example, consider certain well-established principles of general method such as self-activity, apperception, interest, and drill. of these relate definitely to the learning process of the child. The teacher is assumed to provide the stimuli to which certain desired responses are to be made by the pupil. In a given instance the stimulus might be one of the addition combinations in arithmetic; it might just as well be the product of the sum and the difference of two quantities in In the first instance the learning problem may be

<sup>&</sup>lt;sup>1</sup> Elementary School Journal, Vol. XXIX, page 393 (1929).

expressed by the statement, 9+7=? In the second it will be (a-b)(a+b)=? The portion of the expression to the left of the equality sign is the stimulus or situation to which the response is to be made. The interrogation point stands for the desired reaction or response. The equality sign may indicate the bond or association between them.

Now how are the general principles mentioned above related to the pupil's learning — to the acquisition of the desired response? According to the first of these principles, that of self-activity, a child's learning depends on his own responses to such situations. These responses may start with his counting 9 pencils and 7 pencils to see if the total is 16 pencils. In the case of the algebraic problem, the pupil may begin by multiplying (a + b) and (a - b) to find out something regarding the type of result before making the generalization represented by the formula or rule. In any case he is led to react in some promising way to the situation.

The second principle, apperception, means simply that the reactions which the pupil makes to such a situation are determined by his previous experience and his present mental readiness. The interest principle means that reactions which are accompanied by a pleasurable affective tone are more readily learned than those which are not, while drill means repetition and is employed to strengthen the connection between stimulus and response. In every case it is easy to see that the method principle has its raison d'être in the contribution it makes to economy in the pupil's learning.

Accepting the notion, therefore, that an instructional method is a way of directing the child's learning, and conceiving the field of discussion to be entirely within the four walls of the teacher's classroom, one finds many problems, such as those mentioned in the above quotation, that are not an intimate part of the business of directing learning. They are only externally and not internally related to it.

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Moreover, the direction of learning is so important, the difficulties are so great, and the amount of material relating to it so extensive, that it seems best, everything considered, to treat the guidance of learning activities as an independent or separate unit in the teacher-training program.

The meaning of scientific management. If the function of instructional methodology is the guidance of the learning process, what now, one may ask, is the function of scientific management?

It is well known that the methods of scientific management have already been applied to a wide range of human affairs. Taking their origin in the industrial domain, they have steadily and surely spread until one may well inquire what departments of social life are exempt from their invasion. It is difficult, for two reasons, to imagine that any department will be exempt: (1) The movement represents the application of scientific method to the control of human activities, and (2) science accepts no limits to its program—the control of events in all departments of human life. The movement, therefore, stands for much more than the efficient regulation of a shop or factory job or process. It stands for the more effective control of activities throughout the whole range of human affairs.

The scientific-management movement started in a very modest way under the leadership of Frederick W. Taylor when he was a foreman in a machine shop of the Midvale Steel Company in Pennsylvania. Between 1880 and 1890 Taylor conceived the idea of making a study of certain jobs in his shop for the purpose of discovering how they should be performed. He was reluctantly granted an appropriation for this work by his superintendent and during the above period devised and introduced his method of job analysis, the most important single feature in the general scheme of industrial management.

In passing, let us not overlook the pattern of thought which led to Taylor's discovery, kept him successfully at work for many years, and inspired a whole host of followers. Toward the question, What is the best way to perform a given piece of work? Taylor assumed a perfectly openminded and objective attitude. He directly invoked the method of Baconian induction. Tradition and personal prejudice were laid aside. Facts became the basis of his conclusions — facts regarding the performance of jobs, gathered under controlled conditions and precisely recorded. In short, the scientific-management movement, originated by Taylor, grew out of the application of scientific methods to the problem of determining how jobs in a machine shop should be performed.

The need for proper industrial management. No results of scientific management are more astonishing than the revelations in regard to wasteful methods. In shops supposed to be well organized, the degree of inefficiency discovered often verges on the unbelievable. Such inefficiency naturally helps to explain the vast improvements in operations brought about by experts in industrial management and reported in the literature of the subject.

For an illustration of a poorly operated shop, read the following description by Harrington Emerson:

I recently went through the machine shop of a big textile mill in New England. . . . And when I came back, the president asked me what I thought of it. I somewhat unwisely said, "I don't think very much of your machine shop." . . . We went out [into the shop] and the first machine that we came to had a little piece of steel on it about the size of a visiting card. It was a little slotter. It was overrunning the stroke threefold instead of just making a little cut across. The tool was in the metal only one sixth of the time. The efficiency was only 30 per cent as to time. The speed

<sup>&</sup>lt;sup>1</sup> F. W. Taylor, The Principles of Scientific Management, pages 117-118 (Harper & Brothers, New York; 1911).