Book Reviews

Samuel B. Magill, *Editor*

Modern Elementary Mathematics

by Morgan Ward and
Clarence Ethel Hardgrove

Addison-Wesley Publishing
Company, Inc.
420 pp.

Are you familiar with the new Math? Can you tell what those curious little symbols mean? More importantly, as a trainer, can you explain the symbols to trainees in engineering and computer departments, or at least tell them were to go to find an explanation?

It is probably correct to say that unless a manager graduated within the past couple of years or so he needs to update his knowledge of mathematics regarding sets, symbolic logic, Boolean algebra, and the different ways to manipulate numerical data.

This book takes the reader step by step through this modern wonderland. It is intended as a pre-service textbook for teachers of the elementary grades, and so, it is written for adults although it treats of subjects which are nowadays considered elemental.

One could, of course, make out a case for restoring arithmetic to its former high place among the sciences. There is nothing essentially immature about arithmetic, geometry, or algebra, yet grownups sometimes look pained when it is suggested that their work would benefit if they knew more about these subjects. Many persons who pride themselves on their ability to think in logical patterns fail to perceive that the field of mathematics is grounded in logic, also.

This book discusses numbers, sets, use of models, and algorithms (which it defines as "a systematic procedure for performing a mathematical operation"), and explains a lot of other terms which may have become hazy in the reader's mind. It has interesting things to say about induction, deduction, and analogy along the way. Always in the background is the recurring theme that mathematics is a logical exercise and can best be handled on a logical basis. It is easy to read but one of its chief virtues would seem to be that it explains, simply and unself-consciously, the modern system of mathematical notation with which people who work with engineers, scientists, and mathematicians must be intimately familiar.

A cautionary note: other books having the same or similar titles are in the current book lists so that any requisition should include the publisher's name.

S. B. M.

Changing Organizations

by Warren G. Bennis

McGraw-Hill Series in Management
$8.25 223 pp.
(Text edition also available)

When Warren Bennis finished his presentation on organizational change at the ASTD Conference in Pittsburgh last May, he was quickly surrounded by persons asking where they could

get copies of his talk. He answered that a new book expanding his ideas would soon be published. This book has now appeared, and it is a complex and immensely interesting study.

One hears a lot about the role of the change-agent in the organization, but much of the talk is hard to pin down to administrative reality. This book discusses the factors which lead to decisions to change, describes the crucial preliminary steps, and then goes into the process itself.

Bennis, who is Alfred P. Sloan, Professor of Management at MIT, contends that the manager of the future will have to develop extraordinary interpersonal and technical skills to cope with the changing demands of our times. He sees the organizational structure of bureaucracy as being largely characterized by an attempt to exploit the scientific aspects of management and ignoring the variables inherent in the human components. He believes that bureaucracy will yield to an enlightened form of democracy which will mobilize the interests of individuals in support of organization goals. A six-point model of such an organization is proposed.

The process of change, Professor Bennis believes, will be along three broad pathways—training, consulting, and research, or combinations of these.

Two training approaches are discussed in some detail, one being the Managerial Grid of Blake and Mouton, and the other, Sensitivity Training, a-la the T-Group of the National Training Laboratories.

There was a time when the social psychologist was looked at askance by industry. (The first ones who arrived looked so tentative and uncertain that no one would have believed they could ever become so sought after by business.) Bennis traces the upsurge of interest in the behavioral sciences to the fact that, faced with this need for change, conventional managerial wisdom has failed to produce results. He can get pretty dramatic when he wants to, and the way he characterizes Management Development of the mid-fifties—midway in effectiveness between football coaching and home economics—is amusing even though obviously colored by the writer's own set of values.

This reviewer had some difficulty with some of the earlier sentence clauses, like ". . . when the true content of these three idenes surfaces and invades the institutional juglars . . .", (sic) but once the subject is well launched, Professor Bennis maintains a high ratio of understandability. He writes imaginatively, provocatively, and with a broad range of scholarly illustration. He is opinionated, biased in favor of the behavioral scientist and eloquently scornful of older ways of doing things. He does, however, know what he terms the knowledge business, and has worthwhile things to say to training executives.

S.B.M.