# **Book Reviews**

SAMUEL B. MAGILL, Editor

#### FUNDAMENTALS OF SEMICONDUCTOR AND TUBE ELECTRONICS

H. Alex Romanowitz

John Wiley & Sons, Inc. \$8.25 620 pp.

Reviewed by E. J. THIELEN Ass't Superintendent, Engineering Training, Western Electric Company

This book spreads before its readers a comprehensive and thorough introduction to both transistors and electron tubes as devices, and their typical applications in circuits. The presentations are made with a minimum amount of mathematics, chiefly elementary algebra and trigonometry. It is easy reading in understandable terms to those interested in developing a basic knowledge of electron tubes and semiconductors.

The first chapter develops elementary circuit principles, basic to the understanding of electrical circuit theory, and is quickly followed by a chapter on the three most useful types of electrical measuring instruments for those interested in the laboratory and experimental phases of electronics. From this point on a thorough treatment of the electron tube and transistor part is presented. Parallel treatment of transistors and electron tubes discusses theory of operation, physical structures, and their application to common circuits. Many types of transistors and electron tubes are discussed along with their associated circuit elements. Many examples of circuit design are shown with step-by-step explanation and procedures that quickly develop a mature confidence in their understanding and application.

The uninitiated industrial designer will find stimulation in the more practical application of these devices contained in a chapter exclusively devoted to their use.

#### ELEMENTS OF TECHNICAL REPORT WRITING

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Paul M. Zall

Harper & Brothers, New York \$3.25 208 pages

Reviewed by MILTON WOITO Training Director Link-Belt Speeder Inc. Cedar Rapids, Iowa

For those of us who are frequently called upon to prepare technical reports here is a well written, concise and easyto-understand store of information. The ABC's of report writing and the three basic elements of good communication, viz; logical arrangement, psychological temper and linguistic clarity, are skillfully presented. They appear sequentially from the planning and information collecting stages through the creation and organization of suitable format, the sample draft, and finally, the necessary analysis and revision procedure. Each of these areas is simply but thoroughly explained through the use of tables and graphs, both for clarity, and purposeful, instruction.

Other important phases of good report writing; correct sentence construction and grammar, review and revision, accuracy and proper continuity of subjects, are described in detail. Numerous check lists plus quick and easy references are noteworthy.

Another distinction seldom found in texts of this nature is the addition of comprehensive practice problems at the conclusion of each chapter. By working them out, the reader finds competent direction in applying the principles previously set forth.

This book will serve as a practical guide and critique for all who forge laboriously through pages and tables of details and statistics. It is an excellent handbook, a brief but useful tool for good technical report writing.

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#### PRIME I

#### PROGRAMED INSTRUCTION FOR MANAGEMENT EDUCATION COST REDUCTION AND CONTROL FOR THE SUPERVISOR

American Management Association, Inc. New York

\$27. (\$18. to members of AMA)

PRIME comes dressed in a sleekly functional blue vinyl package. Although not a book in the usual sense, one can hardly avoid using this term when describing it. One binder contains the program and another is the workbook. An ingenious plastic slide performs several functions: it concentrates the reader's attention on just one frame of information at a time, permits the student to write a response to a question through a Use this coupon to obtain

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window opening and then, upon further movement, shows what the correct answer should be.

PRIME I covers six aspects of cost reduction and control for the supervisor -basic concepts, raising productivity, scheduling for smooth production, saving materials and supplies, avoiding spoilage and rework, and principles of work sampling and work simplification. The text was developed by the staff of the American Management Association, and the actual translation into programed frames, plus testing and validation, was done by Teaching Machines, Inc. an affiliate of Grolier, Inc. As training men will recall, this company's laboratories in Albuquerque, N. M. were the setting for some of the early applications of programed instruction.

PRIME is directed to a mass marketthe front-line supervisors in industry and business for whom cost reduction is an ever-present responsibility. The treatment is simple and non-technical. A flow-diagram, a couple of flow-process charts, and a few tables, are the only departures from straight text. There is no branching. The examples are taken principally from industry, but an office supervisor will find that the principles of cost reduction apply equally well to his operations. Unlike an ordinary book, this set is to be used by one person and then to be retained by him as a personalized guide.

One difficulty of earlier programed texts, of being unable to refer to specific items later on, has been overcome by requiring the student to fill in principal steps and sub-steps of each unit in the workbook. A pre-and post-test is supplied by which to check the student's progress, and a trainer's handbook is supplied to the company's coordinator with suggestions for maximizing benefits from the course.

S. B. M.

## NOW YOU ARE A SUPERVISOR William M. Read

#### Pyramid Publishing Company Coatesville, Penna. \$6.50 287 pp.

As Director of Development for a large oil company, Bill Read has had many opportunities to test and refine his ideas concerning training. This book is obviously written from experience and is phrased in the friendly 'you' style of the supervisory conference even down to the spaces for writing in answers to the questions he proposes. It is written at the level of the beginning supervisor, and covers all of the topics usually found in such a book, including leadership principles, how to reprimand, how to apply company policy, and the like.

The book is intended as a text in supervisory courses in larger companies; and, in small to medium-sized organizations, as a point of reference for existing managers. It could also be used for home study, since the correct answers to the cases and problems are usually found on the following page.

The important feature of this work is that it gives the reader a chance to think through, step by step, the actual techniques of supervision.

As ASTD members know, the author is a member of the Philadelphia Chapter and is active in local and national training activities.

#### PROGRAMMED INSTRUCTION IN PERT

Entelek, Incorporated Newburyport, Mass. Single Copy Price: \$27.50

The management technique called PERT, or Program Evaluation and Review Technique, is in essence a rather simple concept, but is is capable of such varied applications that, if thrown too rapidly at the head of a learner, it becomes almost forbiddingly difficult.

Thus it is an ideal on which to try out the equally new and challenging device of Programmed Instruction. The result, as shown by this notebook-shaped training tool, is a work of rare clarity and absorbing interest.

The writing was done by Dr. John W. Mauchly and the Mauchly Associates for Entelek, Incorporated. As a learning device, as a showpiece for Programmed Instruction, and as an example of good technical writing, this item deserves commendation.

### HOW TO USE PROGRAMMED INSTRUCTION

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A self-contained guide . . .

#### A GUIDE TO PROGRAMMED INSTRUCTION

Principles & Practical Techniques To Programming Instructional Units

By JEROME P. LYSAUGHT and CLARENCE WILLIAMS. Offering organized, stepby-step guidance, this book gives a practical process for developing a programmed instructional unit. It shows how to select appropriate units of study, how to design and utilize programmed materials in various subjects, and how to introduce programmed methods into teaching. Illustrations clarify each step of the programming progress and simple statistics make the book a self-contained guide to program construction and utilization. 1963. 180 pages. \$3.95.

#### Zeines: PRINCIPLES OF APPLIED ELECTRONICS

For the beginner, this is a new, easyto-understand introduction to the fundamentals of electronics and electron devices. 1963. 425 pages. \$6.95.

### Lurch: ELECTRIC CIRCUITS

This is a general introduction to the field of circuits, for students of electricity and for those interested in the broad field of electronics. 1963. 565 pages. \$7.50.

#### Howes-Dubisch: SELF-TEACHING INTERMEDIATE ALGEBRA

Step by step instruction in the manipulative skills of algebra, teaching the student mathematics by having him do mathematics. 1963. 446 pages. \$4.95.

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