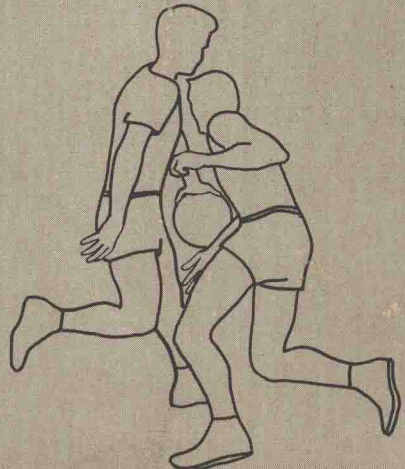
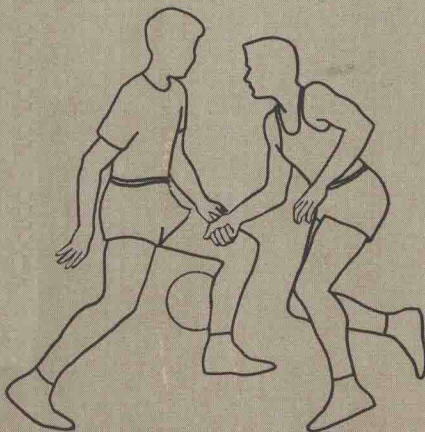
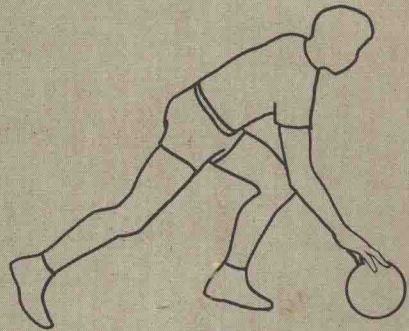
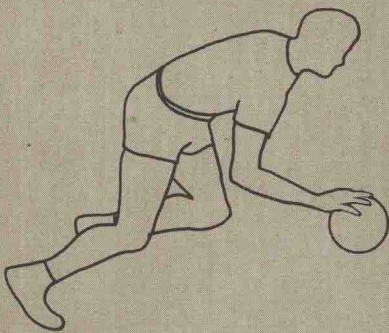


The Theory and Science of Basketball

John M. Cooper and Daryl Siedentop

SECOND EDITION



The Theory and Science of Basketball

JOHN M. COOPER, Ed. D.

*Professor of Physical Education, Indiana University, Bloomington, Indiana, Former
College and AAU Basketball Coach*

DARYL SIEDENTOP, P. E. D.

*Associate Professor of Physical Education, The Ohio State University, Columbus, Ohio,
Former Assistant Basketball Coach, Hope College*

ILLUSTRATED

SECOND EDITION



LEA & FEBIGER • PHILADELPHIA • 1975

Health Education,
Physical Education, and
Recreation Series

RUTH ABERNATHY, PH.D., EDITORIAL ADVISER
Professor Emeritus
School of Physical and Health Education,
University of Washington, Seattle, Washington, 98105

Library of Congress Cataloging in Publication Data

Cooper, John Miller, 1912-

The theory and science of basketball.

(Health education, physical education, and recreation series)

Bibliography: p.

1. Basketball. I. Siedentop, Daryl, joint author. II. Title.

GV885.C624 1975

796.32'32

74-4376

ISBN 0-8121-0502-8

Copyright © 1969, 1975 by Lea & Febiger. Copyright under the International Copyright Union. All rights reserved. This book is protected by copyright. *No part of it may be reproduced in any manner or by any means, without permission from the publisher.*

First Edition, 1969

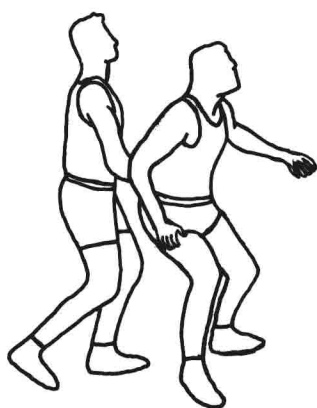
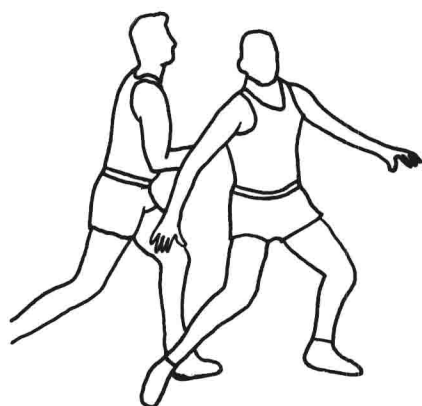
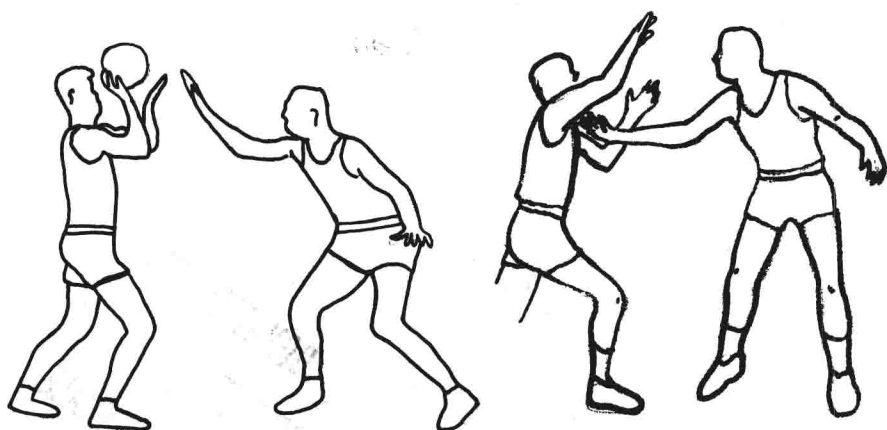
Reprinted, 1970

Second Edition, 1975

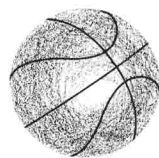
Published in Great Britain by Henry Kimpton Publishers, London

PRINTED IN THE UNITED STATES OF AMERICA

The Theory and Science of Basketball



*to our families
for their patience and forbearance*



Foreword

This second edition upgrades and updates the fine basketball book written by Cooper and Siedentop. This book has proved to be one of the few really outstanding and lasting contributions made to the literature in the field of basketball.

It appears that a repeat of what was previously written about the authors with some updating needs to be done in this edition. Dr. John M. Cooper brings impressive credentials to the task of writing on the subject of basketball. For over thirty years he has been a close student of the game, as a player, coach, teacher, and consultant. This broad view is combined with an abiding dedication to the game of basketball and those who play and coach it. Recently, he and his students at Indiana University, where he is now located, have been doing research in some of the finer details of the game never yet investigated. One coach from a large university told me that he was so fascinated by the first edition when he received it, he sat up all night reading it. The second edition is equally irresistible to the basketball-minded individual.

Dr. Cooper was an extraordinary high school player, once scoring 500 points in one season. Later, he was an excellent college player at the University of Missouri where he is now given credit as being the first college player actually to use the jump shot as a primary offensive weapon. This fact perhaps indicates his willingness to experiment with new ideas and to test their practical consequences for increased skill in basketball performance. During his playing career at Missouri, he is credited with scoring approximately 47 percent of his team's points in a single year. This is the highest percentage recorded in the history of the Big Eight Conference, exceeding such all-time greats as Clyde Lovellett and Wilt Chamberlain.

Prior to going to the University of Southern California, he was a successful high school and college coach. Concurrently with fulfilling his responsibilities at U.S.C. he coached the Southern California AAU champions for two years.

During his years as a teacher he has had an opportunity to exert an influence over many young and aspiring basketball coaches. It was in just such a situation that my long and close association with him began at the University of Southern California where he was on the Physical Education staff for twenty-one years. As a teacher he was able to bring the application of scientific evidence down to the practical level and apply it to the every day problems that coaches face in developing players. His was a lasting influence on me, as well as on other students such as Bill Sharman and Tex Winter. He was never too busy to sit down and discuss basketball problems with his students and try to find ways to improve old methods and create new ones.

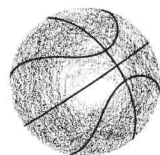
This book is a reflection of his excellent teaching. He brings to it the same experience and practicality that made his classroom an exciting place to be. He is an experienced writer, which in itself makes this book an oddity among the many books in print on the subject of basketball. He expresses his basic ideas with clarity and with a minimum of extraneous words. The principles approach utilized in the book should be a major contribution to the development of sports literature. The principles reflect, in a practical way, a professional lifetime spent in the scientific study of movement skills in general and basketball skills in particular.

Daryl Siedentop, the co-author, has recently been engaged in coaching basketball at the college level. Also, since the publication of the first edition, he has become an outstanding young scholar in several fields of endeavor, yet still maintaining his deep and inquisitive interest in basketball. He was engaged so that the ideas expressed herein would be relevant to the day-to-day problems that a basketball coach faces in the competitive world in which the game is pursued today. Daryl Siedentop played on Hope College basketball teams from 1956-1960. During this four-year period, the Hope teams compiled a fantastic 73-15 record, won four Michigan Intercollegiate Athletic Association championships, and made two trips to the NCAA college division tournament. Daryl joined his college tutor, Coach Russ DeVette, as an assistant immediately following his graduation. As a player and a coach, Daryl was a part of a winning tradition at Hope College that could boast of nine conference championships in eleven years.

In addition several young and successful coaches have reviewed the manuscript for its correctness of terminology and elucidation of ideas. Their suggestions are included.

It gives me a great pleasure to recommend this revised book to all coaches and students of the game of basketball. It contains valuable information that will be an excellent book to use in basketball theory classes for undergraduate and graduate students who aspire to be successful coaches.

BOB BOYD
Head Basketball Coach
University of Southern California
Los Angeles



Preface

We have retained in this second edition most of the unique features of the first edition. We still believe we can discuss the various aspects of the game with more than reasonable objectivity since we are not currently engaged in coaching basketball. The first of these features is that we do not advocate the use of any one "system" of basketball. The use of any one offense in preference to any other or any one defense over another is not presented. Rather, an attempt is made to present a comprehensive picture of the advantages and disadvantages (their strengths and weaknesses) of the major current offensive and defensive systems.

We have updated some portions and in several instances completely rewritten certain sections. Several terms have been changed to bring the contents in line with the latest basketball terminology.

The development approach has been updated and retained in the presentation of the material. That is, an attempt is made to present suggestions and steps that the coach may utilize in the development of his own offensive and defensive systems. To accomplish this task, the principles approach to the subject matter of basketball is used. Wherever possible, specific principles are suggested that can be used to form the foundation upon which a coach may build his own offensive and defensive system that would be in keeping with his understanding of and his philosophical concepts related to the game. For these reasons, it is thought that this book might be particularly suited for use by students in the basketball theory classes at the undergraduate and graduate levels in the colleges and universities, as well as for all coaches of basketball at every level.

The second major feature of this book is the use of knowledge generated from the scientific analysis of human movement and the scientific study of the learning process. This is a true unique feature. This information is not presented using scientific terminology. That would confuse rather than

clarify the problems of coaching. Rather the knowledge of the authors' scientific disciplines is taken and translated into workable suggestions for coaching. Modern coaches in every sport are making better use of the results of research. This is true both for results from biomechanics (the science of human movement and behavioral psychology (the science of human behavior). Track coaches, swimming coaches, and football coaches are all beginning to be more aware that they can improve performance by utilizing principles and findings derived from scientific research. The inclusion in this text of principles derived from research has, it is hoped, been made meaningful. It is believed that such principles are crucial to a thorough understanding of the topic under discussion. It would serve no purpose to insert scientifically based suggestions that were not useful in the real world of coaching. Scientific information is of little value to basketball coaches if it does not help them to develop players who are more highly skilled and teams that have a better chance of winning games. The motivation for presenting these principles is not for the purpose of impressing coaches with the scientific expertise of the authors. Indeed, it has been the authors' experience that most coaches have a "show me" attitude toward scientists and academicians. This skepticism is healthy. The purpose here has been to take what is useful and put it to service by passing it on to those who can best use it.

Originally we planned to have a young successful woman coach present her ideas in this edition. After writing down some concepts to be included she and her fellow coaches suggested that all that was needed was to state "skill is skill" and is not restricted to sex. We have done as she and they advised.

The organizational plan used here is not unique and was not replaced in this edition. Indeed, it seems to represent the consensus of many people concerning the best order of presentation to use in studying about the game of basketball. However, there are several topics included in each major division that are unusual, some of which we have updated and we have completely rewritten two sections.

In Chapter 1, The Game of Basketball, the sections on Principles of Learning and Predictions for the Future are examples of this uniqueness. It also appeared to be a good procedure to present the individual and team aspects of basketball separately. Thus, these latter form the second and third parts of the book.

Chapter 2, Individual Fundamentals, contains most of the practically applied scientific principles.

Chapter 3, Formation of Offensive and Defensive Systems, basically reflects the broad comprehensive approach taken in the presentation of the material. No single system of play is advocated over another. Rather, an

attempt is made realistically to assess and offer advice about problems and situations that the coach will face in selecting and developing offensive and defensive systems.

In Chapter 4, Administration, an attempt is made to relate the practical importance of the effective accomplishment of administrative tasks to the total success of the basketball program. It may be stated that in the final analysis the use of good administrative techniques should help the coach to be successful in his work as a basketball coach.

Chapter 5, The Basketball Class in Physical Education, is included under the assumption that most high school and many college basketball coaches in the United States are also involved (directly or indirectly) in the teaching of physical education classes or in the training of future coaches and teachers. It is hoped that the ideas presented here will be of value to these teachers.

Finally, since the entire world is rapidly moving toward a standard set of international rules, we have included a summary of the differences between the collegiate and international rules. This will be found at the end of the book.

We acknowledge the contributions that we have received from many coaches and students of the game of basketball. Also, we are very appreciative of the specific suggestions given us by a recent fine player, Douglas Ash, formerly of Hanover College. We gratefully acknowledge the typing of the manuscript done by Charlianna Cooper.

JOHN M. COOPER
Bloomington, Indiana

DARYL SIEDENTOP
Columbus, Ohio



Contents

1. <i>The Game of Basketball</i>	3
Philosophy of Coaching	3
Comparison of Play Now with That of the Past	5
Psychology of Coaching Basketball	18
Principles of Motor Learning as Applied to the Learning of Basketball Skills	22
How to Understand and Enjoy Watching a Basketball Game	28
Predictions for the Future	34
2. <i>Individual Player Fundamentals</i>	38
Introduction to Principles of Performance	38
Dribbling	39
Passing	46
Receiving	52
Shooting	54
Movement Fundamentals (Pivoting, Starting, Running and Stopping)	73
Offensive Rebounding (Tipping In)	76
Defensive Rebounding	81
Foul Shooting	87
Screening	91

Playing the Post	94
Intercepting Passes	98
Jumping in Held Ball Situations	100
Participating in Drills	102
Conditioning for Basketball	104
A Pre-Season Conditioning Basketball Program for College Players	107
 3. <i>Formation of Team Offenses and Defenses</i>	110
Individual Player Offense	110
Individual Player Defense	118
Selecting the Players on the Squad	127
Selecting the Starters	130
Team Offenses	132
Team Defenses	146
Strategy	167
The Organization of Practice Sessions	169
 4. <i>Administration of the Total Basketball Program</i>	175
Introduction	175
Management by Objectives	176
Scheduling Procedures	177
Scouting	178
Preparing for Tournaments	186
Pre-Game Check List	190
Purchase and Care of Equipment	192
Public Relations	197
 5. <i>The Basketball Class in Physical Education</i>	199
Teaching or Coaching	199
Choice of Teaching Methodology	201

Behavioral Objectives for Basketball	202
Motivation in Teaching Basketball in Physical Education	204
Principles of Class Organization	206
Major Differences Between International and Collegiate Basketball Rules	212
<i>Glossary</i>	215
<i>Sample Diagrams of Team Offenses</i>	218
<i>Sample Diagrams of Team Defenses</i>	234
<i>Selected Basketball Books</i>	243
<i>Selected Research Articles</i>	245
<i>Index</i>	251

*The Theory and
Science of Basketball*

