

**TEACHING VISUALLY
IMPAIRED CHILDREN**

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Third Edition

TEACHING VISUALLY IMPAIRED CHILDREN

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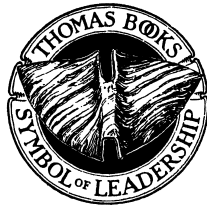
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CHARLES C THOMAS • PUBLISHER, LTD.
Springfield • Illinois • U.S.A.

Published and Distributed Throughout the World by

CHARLES C THOMAS • PUBLISHER, LTD.
2600 South First Street
Springfield, Illinois 62704

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ISBN 0-398-07476-3 (hard)
ISBN 0-398-07477-1 (paper)

Library of Congress Catalog Card Number: 2003063440

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*Printed in the United States of America
MM-R-3*

Library of Congress Cataloging in Publication Data

Bishop, Virginia E.

Teaching visually impaired children / by Virginia E. Bishop ; with a
foreword by Natalie C. Barraga; drawings by Charles Denzler and Virginia
Bishop ; computer graphics and charts by Liz Broussard.—3rd ed.

p. cm.

Includes bibliographical references and index.

ISBN 0-398-07476-3 (hard) — ISBN 0-398-07477-1 (paper)

1. Children with visual disabilities—Education. I. Title.

HV1643.B56 2004
371.91'1—dc22

2003063440

*This book is dedicated to
teachers of students with visual impairments (TVIs)
everywhere.
They make a difference!*

FOREWORD

When students with visual impairments are placed in a variety of settings with regular classroom teachers, teacher aides, and specially-trained teachers, no one publication may be available that will address most of the critical issues facing these practitioners. The revised edition of this book is so comprehensive in scope and complete in detail that it would be the most likely one I could recommend for all of them, regardless of the setting or of their training or lack thereof.

The addition of a new chapter to focus on recent evidence of prenatal and early postnatal development of the visual system provides information not included in textbooks usually available. Also, little attention has been given to children who are gifted although visually impaired, and the content in that chapter is a valuable summary of the limited research findings. Other important inclusions are numerous factors related to assessment and evaluation as well as the appropriate learning environments for instruction in supplement skill development.

One of the most outstanding new sections is the discussion of the complexity of brain function as the basis for learning, and the impact of any neurological dysfunction on all aspects of development, especially that of visual learning. The impact of prematurity and cortical damage, as a result of life-saving measures, on the early development of the visual system is fully explained. The vast majority of students today exhibit some degree of neurological impairment from mild to severe, and it is imperative that parents, teachers, and specialists understand the impact of this on behavioral function and on all academic learning tasks. Dr. Bishop has explained very sophisticated information in language understandable by any lay person, making it useful to everyone.

Some material formerly included in the Appendices has been included as chapters in the book itself, and rightfully so, since the present situations indicate the importance of such things as goal-based instructional planning, functional vision evaluation, and learning media assessment.

If this book were utilized daily by every parent and service provider

involved with infants, preschoolers, students, and adults with visual impairments, there is no doubt that the quality of interaction and teaching would be enhanced to a marked degree. The content and how it is presented is reflective of the breadth of experiences of Dr. Bishop and her ability to convey to others so clearly what they need to know and practice. She is to be commended for providing a valuable up-to-date contribution to the literature.

NATALIE C. BARRAGA, ED.D.
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PREFACE

The first edition of this book was published in 1971—before federally mandated special education existed, and before there were any “how to” texts available in the field of visual impairment. It must have met a need since people all over the world have written or thanked me in person for providing a valuable resource.

Twenty-five years later (1996) the second edition of the book was published, and it was an almost completely new collection of information. It, too, has found a place in schools, colleges, and universities, and on professional bookshelves all over the world. Teachers, in particular, have reported that the content of the book is useful, informative, and relative. It was based on professional experience, practical common sense, and a deep respect for the uniqueness of the learning process for visually impaired students.

This third edition of the book retains much of the practical “how to” approach of the last edition, but adds depth in two dimensions: learning theory (emphasizing the eye-brain connection, and the importance of early childhood in the learning experience) and the educational process (from assessment, through the program-planning process, and using outcome-based thinking to direct programming). This edition also offers a chapter that the author believes is unique and has not been adequately addressed in any other known text: the student who is both visually impaired and gifted. Perhaps this chapter will challenge educators and researchers to take another look at this small but extremely unique group of special students.

The reader will notice that some terminology has been changed. The title “VI Teacher” has become “TVI,” and O&M instructors may now be called COMS (certified Orientation and Mobility specialists). Most recent amendments to IDEA have been cited as support for procedures, and instructional areas such as “technology” have been updated. Many of the original references have been retained, but more current texts have also been cited. It is hoped that the reader will find a practical balance between the ageless old and the innovative new.

This third edition has retained the general format of the second edition

with new materials added. Part One still focuses on “Vision” but has added more details on prenatal visual development, the role of vision in early development, some notes on cortical visual impairment and retinopathy of prematurity, and a look at the future of visual enhancement.

Part Two discusses “Learning” again, with some newer information on brain function, a review of recent research on the early development of visually impaired infants and toddlers, a concentrated discussion of the expanded core curriculum (ECC), suggestions for what role the TVI might have with students who have multiple disabilities, an entire chapter on giftedness and visual impairment, and some thought-provoking guidelines on the placement process for visually impaired students. Part Three still focuses on “Testing and Transitions” but adds more detail on disability-related evaluations.

The Appendix now contains a set of sequenced “listening games,” lessons for teaching “touch typing,” a guide for using the braille cell as a reference when teaching print writing to a blind child, a list of indicators for evaluating gifted programs, lists of assessment instruments and resources, and an updated time line of major events in the history of education for visually impaired students. A Glossary of Terms completes the third edition.

It may be a reflection of the times (and perhaps an indication of the increasing rate of change in society) that there has only been eight years between the second and third editions of this book, yet there is so much new information to add. Are we learning more, faster? Or are we just recognizing more easily what we *need* to know? Whichever answer the reader chooses, it has implications for educating visually impaired students. Compensatory skills and adapted equipment have gone beyond “important;” they are now *crucial* if visually impaired students are to take their places in an ever-changing society. We need to teach these students well, prepare them for lifetime learning, and help them realize as much of their potential as possible. Therein lies a very big challenge. I hope this book helps each reader to meet that challenge.

V.E.B.

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**TEACHING VISUALLY
IMPAIRED CHILDREN**

Part One

VISION

Chapter One

WHAT IS VISION AND HOW DOES IT WORK?

There is an underlying premise to this book, and it is the assumption that the brain is the primary organ in the human body. Its capabilities are what distinguishes people from animals, and its ability to control all other body systems may compare it to a “master computer” within each human being. Damage to any part of that “master computer” interferes with the functioning of one or more body systems; total lack of brain function can cause death of the human organism. It is the brain that runs the person, not each sense or each body system. This concept should form the basis of any study of the sensory system and should be the foundation of learning theory. This book draws heavily on that concept.

INTRODUCTION

Vision has been compared to the working of a camera: light enters an aperture (opening), controlled in size to allow more or less light to enter, passes through a lens that bends (refracts) the light rays so that they focus clearly on the film at the back of a dark chamber. That much of the explanation appears to describe vision in simple terms, but most cameras are unable to develop the film into its end product: a photograph. The camera does not comprehend what it “sees”; it still requires a human brain to understand, or attach meaning to, the picture. Therefore, the comparison of vision to a camera is incomplete and simplistic.

A better simile might be the periscope of a submarine. An underwater vehicle can only sense what its sonar (hearing), periscope (vision), or impact (touch) tells it. It is otherwise sensorily isolated. The control center inside (the captain) cannot orient the submarine, or direct its activities without a knowledge of what is outside it. The sonar and periscope are information-collecting systems for the captain. Similarly, hearing, vision, and touch are the pri-