Contents

**IX** Foreword

**XV** Introduction

Learning

1 CHAPTER ONE
Interactions Affording Distance Science Education
   Terry Anderson

19 CHAPTER TWO
Learning Science at a Distance: Instructional Dialogues
   and Resources
   Paul Gorsky and Avner Caspi

37 CHAPTER THREE
Leadership Strategies for Coordinating Distance Education
   Instructional Development Teams
   Gale Parchoma

61 CHAPTER FOUR
Toward New Models of Flexible Education to Enhance
   Quality in Australian Higher Education
   Stuart Palmer, Dale Holt, and Alan Farley

Laboratories

83 CHAPTER FIVE
Taking the Chemistry Experience Home—Home Experiments or “Kitchen Chemistry”
   Robert Lyall and Antonio (Tony) F. Patti
CHAPTER SIX
Acquisition of Laboratory Skills by On-Campus and Distance Education Students
Jenny Mosse and Wendy Wright

CHAPTER SEVEN
Low-Cost Physics Home Laboratory
Farook Al-Shamali and Martin Connors

CHAPTER EIGHT
Laboratories in the Earth Sciences
Edward Cloutis

CHAPTER NINE
Remote Control Teaching Laboratories and Practicals
Dietmar Kennepohl

Logistics

CHAPTER TEN
Needs, Costs, and Accessibility of DE Science Lab Programs
Lawton Shaw and Robert Carmichael

CHAPTER ELEVEN
Challenges and Opportunities for Teaching Laboratory Sciences at a Distance in a Developing Country
Md. Tofazzal Islam

CHAPTER TWELVE
Distance and Flexible Learning at University of the South Pacific
Anjeela Jokhan and Bibhya N. Sharma

CHAPTER THIRTEEN
Institutional Considerations: A Vision for Distance Education
Erwin Boschmann

Author Biographies

Index