

**JACK J. PHILLIPS, Ph.D.**

# RETURN ON INVESTMENT

in **Training and Performance Improvement Programs**

SECOND EDITION

"Wow! Jack Phillips has delivered another must-read masterpiece for everyone who is involved in corporate learning. This is essential reading for all who are focused on assessing the value-added contribution of learning in the workplace. It includes brilliantly focused chapters on thoughtful concepts, and how-to approaches for measuring training in the workplace. If you only read one book, this is the one."

— **Frank J. Anderson, Jr.**, President, Defense Acquisition University

**"Return on Investment in Training and Performance Improvement Programs** is extremely useful in that it provides a proven approach to measuring and evaluating training and development initiatives. I have found Jack Phillips's ROI methodology invaluable. It provides a framework for conducting impact studies that has enabled my training and development department to quantify the value add of our development initiatives. The book is an easy-to-use reference and comes off of my bookshelf often!"

— **Lynn Schmidt**, Director, Leadership Institute, Nextel Communications

"When you think ROI in training and development, you think Jack Phillips. This book represents decades of expertise, and is the de facto standard for anyone trying to calculate ROI in the HRD field today."

— **Kevin Oakes**, CEO & Chairman, Click2learn, Inc.

The second edition of this bestselling book guides you through a proven, results-based approach to calculating the Return on Investment in training and performance improvement programs.

Jack Phillips has composed user-friendly ROI calculations, plus:

- Ten post-program data collection methods
- Ten strategies for determining the amount of improvement that is directly linked to training programs
- Ten techniques for converting both hard and soft data to monetary values

 **Routledge**  
Taylor & Francis Group



PHILLIPS



IMPROVING HUMAN PERFORMANCE SERIES

RETURN ON INVESTMENT  
in Training and Performance Improvement Programs

SECOND EDITION



# RETURN ON INVESTMENT

in **Training and Performance Improvement Programs**

SECOND EDITION

**JACK J. PHILLIPS, Ph.D.**



# **Return on Investment in Training and Performance Improvement Programs**

**Second Edition**



IMPROVING  
HUMAN  
PERFORMANCE  
SERIES

Jack J. Phillips, Ph.D., Series Editor

**Accountability in Human Resource Management**

Jack J. Phillips

**Achieving the Perfect Fit**

Nick Boulter, Murray Dalziel, Ph.D., and Jackie Hill, Editors

**Bottom-Line Training**

Donald J. Ford

**Corporate Performance Management**

David Wade and Ronald Recardo

**Developing Supervisors and Team Leaders**

Donald L. Kirkpatrick

**The Global Advantage**

Michael J. Marquardt

**Handbook of Training Evaluation and Measurement Methods, 3rd Edition**

Jack J. Phillips

**Human Performance Consulting**

James S. Pepitone

**Human Performance Improvement**

William J. Rothwell, Carolyn K. Hohne, and Stephen B. King

**The Human Resources Scorecard**

Jack J. Phillips, Patricia Pulliam Phillips, and Ron D. Stone

**HR to the Rescue**

Edward M. Mone and Manuel London

**HRD Survival Skills**

Jessica Levant

**HRD Trends Worldwide**

Jack J. Phillips

**Learning in Chaos**

James Hite, Jr.

**Linking Learning and Performance**

Toni Krucky Hodges

**Managing Change Effectively**

Donald L. Kirkpatrick

**The Power of 360° Feedback**

David A. Waldman and Leanne E. Atwater

**The Project Management Scorecard**

Jack J. Phillips, G. Lynne Snead, and Timothy W. Bothell

**Return on Investment in Training and Performance Improvement Programs**

Jack J. Phillips

# Return on Investment in Training and Performance Improvement Programs

Second Edition

Jack J. Phillips, Ph.D.

 **Routledge**  
Taylor & Francis Group  
LONDON AND NEW YORK

First published by Butterworth-Heinemann

This edition published 2011 by Routledge  
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN  
711 Third Avenue, New York, NY 10017, USA

*Routledge is an imprint of Taylor & Francis Group, an informa business*

Copyright © 2003, Jack J. Phillips. All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher.

#### Library of Congress Cataloging-in-Publication Data

Phillips, Jack J., 1945–

Return on investment in training and performance improvement programs / Jack J. Phillips.—2nd ed.

p. cm.

Includes bibliographical references and index.

ISBN 0-7506-7601-9 (alk. paper)

1. Employees—Training of—Evaluation—Handbooks, manuals, etc.
2. Rate of return—Handbooks, manuals, etc. I. Title.

HF5549.5.T7P434 2003

658.3'124—dc21

2003045312

#### British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library.

# Contents

*Preface*, ix

*Acknowledgments*, xvii

## CHAPTER 1

*Measuring the Return on Investment: Key Issues and Trends* . . . . . 1

ROI Progress and Status, 2. Why ROI?, 10. The Concerns with ROI, 16. Barriers to ROI Implementation, 22. Benefits of ROI, 24. ROI Best Practices, 25. Final Thoughts, 29. References, 29.

## CHAPTER 2

*ROI Model* . . . . . 32

Building the ROI Methodology, 33. An Evaluation Framework, 34. The ROI Model, 36. Operating Standards and Philosophy, 52. Implementation Issues, 53. Application and Practice, 53. Final Thoughts, 54. Introduction to Case Study, 54. Case Study—Part A, Linear Network Systems, 54. References, 56.

## CHAPTER 3

*Collecting Data* . . . . . 58

Sources of Data, 59. Questionnaires and Surveys, 61. Testing, 78. Interviews, 82. Focus Groups, 84. Observations, 86. Business Performance Monitoring, 89. Action Planning and Follow-Up Assignments, 91. Performance Contracts, 100. Selecting the

Appropriate Method, 101. Data Tabulation Issue, 105. Final Thoughts, 106.  
Case Study—Part B, Linear Network Systems, 106. References, 109.  
Further Reading, 110.

#### CHAPTER 4

*Isolating the Effects of Training* . . . . . 111  
Preliminary Issues, 112. Use of Control Groups, 117. Trend Line  
Analysis, 121. Forecasting Methods, 124. Participant Estimate of Training's  
Impact, 126. Supervisor Estimate of Training's Impact, 136. Management  
Estimate of Training's Impact, 137. Customer Input of Training's  
Impact, 138. Expert Estimation of Training's Impact, 139. Calculating  
the Impact of Other Factors, 139. Using the Techniques, 140. Final  
Thoughts, 141. Case Study—Part C, Linear Network Systems, 142.  
References, 144. Further Reading, 145.

#### CHAPTER 5

*Converting Data to Monetary Benefits* . . . . . 146  
Preliminary Issues, 147. Techniques for Converting Data to Monetary  
Values, 150. Converting Output Data to Contribution, 152. Calculating the  
Cost of Quality, 153. Converting Employee Time, 155. Using Historical  
Costs, 156. Using Internal and External Experts' Input, 157. Using Values  
from External Databases, 159. Using Estimates from Participants, 159. Using  
Estimates from Supervisors and Managers, 160. Linking with Other  
Measures, 162. Using HRD Staff Estimates, 163. Selecting the Appropriate  
Measures, 164. Accuracy and Credibility of Data, 165. Final Thoughts, 169.  
Case Study—Part D, Linear Network Systems, 169. References, 170.  
Further Reading, 171.

#### CHAPTER 6

*Tabulating Program Costs* . . . . . 173  
Cost Strategies, 174. Cost Tracking Issues, 178. Major Cost Categories, 181.  
Cost Accumulation and Estimation, 188. Final Thoughts, 193. Case Study—  
Part E, Linear Network Systems, 193. References, 195. Further Reading, 195.

#### CHAPTER 7

*Calculating the Return* . . . . . 196  
Basic Issues, 197. ROI Interpretation, 200. Case Application, 209. Other ROI  
Measures, 213. Utility Analysis, 215. Consequences of Not Training, 216.

ROI, the Profit Center, and EVA, 218. ROI Issues, 220. Final Thoughts, 226.  
Case Study—Part F, Linear Network Systems, 227. References, 232.  
Further Reading, 233.

#### CHAPTER 8

*Identifying Intangible Measures* . . . . . 235  
Key Issues, 236. Typical Intangible Measures, 242. Final Thoughts, 252. Case  
Study—Part G, Linear Network Systems, 252. References, 255. Further  
Reading, 255.

#### CHAPTER 9

*ROI Forecasting* . . . . . 256  
Why Forecast ROI?, 256. The Trade-Offs of Forecasting, 258.  
Preprogram ROI Forecasting, 260. Forecasting with a Pilot Program, 266.  
Forecasting ROI with Reaction Data, 267. Forecasting ROI with  
Learning Data, 272. Forecasting ROI with Skills and Competencies, 275.  
Forecasting Guidelines, 277. Final Thoughts, 280. Case Study—  
Part H, Linear Network Systems, 280. References, 284. Further  
Reading, 284.

#### CHAPTER 10

*How to Communicate Results* . . . . . 286  
The Importance of Communication, 287. Principles of Communicating  
Results, 288. Analyzing the Need for Communication, 291. Planning the  
Communication, 293. Selecting the Audience for Communications, 296.  
Developing the Information: The Impact Study, 299. Selecting the  
Communication Media, 302. Communicating the Information, 309.  
Analyzing Reactions to Communication, 316. Final Thoughts, 317. Case  
Study—Part I, Linear Network Systems, 317. References, 320. Further  
Reading, 321.

#### CHAPTER 11

*Implementation Issues* . . . . . 322  
Overcoming the Resistance to ROI, 322. Planning the Implementation, 325.  
Preparing the HRD Staff, 337. Initiating the ROI Process, 341. Preparing  
the Management Team, 344. Monitoring Progress and Communicating  
Results, 349. Cost Savings Approaches, 349. Final Thoughts, 353.

Case Study—Part J, Linear Network Systems, 353. References, 354.  
Further Reading, 355.

*Appendix A: Resources, 356*

*Appendix B: How Results-Based Are Your Training and Development Programs?, 363*

*Index, 371*

*About the Author, 377*

# Preface

## THE USE OF ROI IS EXPLODING

Return on investment (ROI) has become one of the most challenging and intriguing issues facing the human resources development (HRD) and performance improvement field. The interest in ROI has been phenomenal. The topic appears on almost every HRD conference and convention agenda. Articles on ROI appear regularly in HRD practitioner and research journals. Several books have been developed on the topic, and consulting firms have been developed to tackle this critical and important issue.

Several issues are driving the increased interest in ROI. Pressure from clients and senior managers to show the return on their training investment is probably the most influential driver. Competitive economic pressures are causing intense scrutiny of all expenditures, including all training and development costs. Total quality management, reengineering, and Six Sigma have created a renewed interest in measurement and evaluation, including measuring the effectiveness of training. The general trend toward accountability with all staff support groups is causing some HRD departments to measure their contribution. These and other factors have created an unprecedented wave of applications of the ROI process.

## NEEDED: AN EFFECTIVE ROI METHODOLOGY

The challenging aspect of ROI is the nature and accuracy of its development. The process often seems very confusing, surrounded by models,