

PRODUCT TRAINING FOR THE TECHNICAL EXPERT

The Art of Developing
and Delivering
Hands-On Learning

Daniel W. Bixby




IEEE PRESS

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Jim Kirkpatrick, PhD, Senior Consultant, Kirkpatrick Partners, USA

"Daniel Bixby's approach to product training for technical experts is practical, relevant and exactly what anyone who is required to train others on technical content really needs. He writes with candor and with a sense of ease, making the reader feel as though he is right there with you helping to develop your training competency. A must read for anyone on your team required to provide technical training to others!"

Jennifer Alfaro, Chief Human Resources Officer, USA

An expert guide to developing and delivering technical product training programs

While there are many books on talent development, leadership training, and internal training program development, there are precious few offering subject matter experts' (SMEs) guidance on training others to get the most out of their products. Written by a training expert with many years of experience working at top technology companies, *Product Training for the Technical Expert* fills the gap in the training literature by providing technical experts with a comprehensive handbook on becoming effective product training instructors.

When new technology is rapidly transformed into products for popular consumption, technical experts, such as engineers, and other subject matter experts, are the ones tasked with instructing the public on their use. Unfortunately, most of them have little or no prior experience or training in adult education and don't have a clue about how to transfer their knowledge to others. In this book, author Daniel W. Bixby draws upon his vast experience developing and delivering training programs at Honeywell, Telex, Bosch, TE Connectivity, and CommScope, among other technology companies, to arm SMEs with the knowledge and skills they need to add "Product Training Specialist" to their resumes.

- Addresses an area of training too often overlooked and ignored in the professional literature
- Equips SMEs with the tools they need to become effective product instructors
- Covers both the educational and business aspects of product training for SMEs
- Packed with tables, illustrations, problem-and-solution sets, tutorials, enlightening real-world examples, worksheets, and group or self-study questions
- Features a companion website with worksheets and other valuable tools: www.wiley.com/go/Bixby
- A must-have professional development resource for students and experienced technical experts alike

Product Training for the Technical Expert is an ideal guide for engineers, product managers, product marketing managers, and technical instructors looking to expand their repertoires and hone their skills. It also makes an excellent course text for graduate-level engineering programs.

Daniel W. Bixby is a Training Director in the USA. A training professional with a Masters Degree in Education, he has worked for a range of technology companies including Honeywell, Telex Communications, and Bosch Communications and has served as a chapter president of the Association for Talent Development. He specializes in creating training programs that improve the success of very complicated products. Working with engineers and product managers, he developed various courses, building the objectives and curricula from scratch. He has traveled around the world helping engineers and other technical experts become effective product instructors.




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Product Training for the Technical Expert

*Dad,
More than anyone I know, you believed that
doing teaches better than telling.
I love you.*

Praise for *Product Training for the Technical Expert*

Most organizations have some of their greatest competitive advantage and wisdom locked hopelessly in the mind of their technical experts. Sure, as a force-of-one, subject matter experts get the job done incredibly well. But try to extend and multiply that individual expertise through learning and development efforts for others and the results are usually disappointing. Dan Bixby has been there and through this comprehensive and practical book, he shows how to overcome this challenge and unlock individual smarts for highly effective learning and development efforts. Further, as we are in the midst of a generational shift in the workforce, this is a very timely guide to ensure “what we know best” is effectively passed along to the new generation of talent.

Kevin D. Wilde

Executive Leadership Fellow,

University of Minnesota Carlson School of Management,

Former Chief Learning Officer, General Mills

Author of Dancing with the Talent Stars: 25 Moves That Matter Now

I was pleased to review Dan’s new book—pleased because he addresses an old topic in a new way. He is making no assumptions for trainers who are not fully experienced and seasoned. He takes them step-by-step through practical and realistic methods to set up training graduates to actually be on-the-job performers. Enjoy, learn and be inspired.

Jim Kirkpatrick, PhD

Senior Consultant, Kirkpatrick Partners

Co-author of Kirkpatrick’s Four Levels of Training Evaluation

Dan Bixby’s book will help technical experts create training that actually works to improve performance. Backed by years of experience, Bixby connects with practical advice and empathy—and helps experts avoid the most common mistakes in product training.

Will Thalheimer, PhD

President, Work-Learning Research, Inc.

Author of Performance-Focused Smile Sheets:

A Radical Rethinking of a Dangerous Art From

Great book! A practical, must-have resource for any technical expert tasked with presenting information or training others. Bixby breaks the process down into simple, easy-to-follow steps that can be utilized by anyone to create dynamic and engaging learning sessions.

G. Riley Mills

co-author of The Bullseye Principle

Daniel Bixby’s approach to product training for subject matter experts is practical, relevant, and exactly what anyone who is required to train others on technical content needs. He writes with candor and with a sense of ease, making the reader feel as though he is right there with you helping to develop your training competency. A must read for anyone on your team required to provide technical training to others!

Jennifer Alfaro

Chief Human Resources Officer

Recognizing that changing other people's behavior is the hardest thing you will ever try to do in your organization is the first step. The next step is recognizing that knowing the what, why, and how; telling the what, why, and how; and showing the what, why, and how is very different from facilitating learning. Dan has captured all of the key factors that one should consider in the conversion process from expert to learning facilitator. The ability to frame up the expertise into memorable, applicable, and measurable performance objectives is a complex, complicated endeavor. Dan's innovative and iterative approach can serve as a blueprint to do this successfully.

Kristin Ford Hinrichs

Chief Effectiveness Officer, Best In Learning

Product Training for the Technical Expert is a must read for anyone who endeavors to bring their training capabilities to the next level. Especially helpful to me was understanding the clear difference between a Presentation and Training. All too often we confuse the two, and frustrate both the learner and the facilitator.

John Schmidt

VP Fiber Market Development, CommScope, Inc.

This book is a must-read for anyone involved in teaching and training regardless of industry. The author, Dan Bixby, outlines principles that will transform any training program into a hands-on learning experience. I highly recommend this book for anyone who desires to improve learning and engagement within their organizations.

James M. Hunter, PhD

Chief Academic Officer, Emerge Education, LLC.

I have already begun recommending this practical manual to experts, trainers, training managers, and instructional designer who are interested in helping people acquire technical skills that are transferable to the workplace. It is obvious that Dan Bixby has enormous expertise and experience in the technical training field. Surprisingly (and fortunately), he has not forgotten the empathy required to engage the beginner's mind.

Sivasailam (Thiagi) Thiagarajan

Resident Mad Scientist, The Thiagi Group.

Author of Interactive Techniques for Instructor-Led Training.

Foreword

How do you design, develop, and deliver effective product training? Effective product training is more important than ever in government, business-to-consumer, and business-to-business environments.

Many technical professionals are asked during their career to train others on what they know. The request to train others is a compliment—people in your organization value product expertise and believe that those who best know a product are also those who can best train others.

There is a significant divide between knowing and doing. As you will learn in this book, the objective of product training is not knowledge transfer but rather proficiency development, as measured by the student's ability to *do*. Especially for adult learners, the goal is to enable the student to be comfortable using the product and confident specifying the product for others in their organization or for their customers.

So how do you design, develop, and deliver effective product training? This question is relevant to a range of professionals. You may be a field product expert being asked to train customers for the first time. You may be an individual in a call center asked to provide one-to-one or one-to-many on-demand product training through webinars. You may be responsible for corporate training and development organization—"training" is in your job title—and you are searching for more effective strategies to create training that results in improved measurable business outcomes. You may be a business leader focused on helping your customer—the technical product specifier—who is thirsty for product knowledge.

My job is a combination of all of the aforementioned roles, and my success directly depends on my organization's ability to develop and deliver effective product training. I lead the sales engineering organization for a multibillion dollar global leader in infrastructure solutions for communications networks with individuals in over 30 countries worldwide.

I have had the privilege to work with Dan Bixby and directly benefit from Dan's passion for product training excellence. Dan has developed a remarkable approach to developing product training and technical experts' skills to deliver product training. I have seen Dan's methodology work firsthand across cultures, languages, and geographies with my global sales engineering team.

You can benefit from the same methodology and principles detailed in this book. As you read this book, you will be surprised by many "ah-hah" moments where striking

foundational ideas are conveyed. These insightful gems are critical in taking your product training effectiveness to new heights. A few examples you will encounter in this book are:

- The true objective of product training (product knowledge is important but is not the goal)
- Recognizing the difference between product training and product certification
- The journey to unconscious competence and how product experts should train audiences at different levels of expertise
- It's never *just* product training—always keep the business objectives in mind
- The 4 × 8 proficiency design model—content is important but must be developed *last*

Additionally, management professionals will benefit from “Executive Summaries” that recapitulate the learning objectives for book sections and highlight how you as a leader can support the individuals in your organization to learn and apply the methodology in this book.

As you, or those in your organization, put the principles in this book into practice, your ability to design, develop, and deliver effective product training will grow by leaps and bounds. Your customers will be confident about choosing and using your products, and you as a technical professional will now have skills, methodology, and appreciation to deliver effective product training.... You may even pick up Dan Bixby's passion for training excellence in the process.

Kevin Ressler, PhD
VP, Field Applications Engineering & Technical Centers

Preface

Nothing influences a human being to learn like another human being. Instructor-led training is not an old-fashioned approach only used by technology latecomers. As wonderful as the Internet is and as powerful as computers are, even the most advanced companies turn to their experts when it matters most. What they want is for the specialist to provide something beyond mere content. The human influence and perspective that a skilled practitioner provides can be more powerful than any interactive software or fancy delivery mechanism. It can also be dangerous. If you are that expert, you must deliver training that changes what people do with your product. Changing what they know about it is not enough.

Like me, you probably did not begin your career with the goal of becoming an instructor. My technical vocation began on the night shift, cleaning silicon wafers in a wet chemical lab. At the time, I thought my new profession was the end of a previous one—teaching. I was wrong. As my technology skills increased, so did my love for learning and helping others to learn. I have been blessed to be able to combine these two skills into a lifelong passion of educating adults in skills that will make them more successful in their careers.

My journey has led me to several companies where I have experienced everything, from being a one-man training department to leading global training programs for large corporations. Like you, I understand the unspoken pressure to be a technical expert first and a good instructor second. I want to help.

It has been my privilege throughout my career to transform engineers into artists. I have helped many people much smarter than I to become effective instructors by demonstrating to them that their students cannot be proficient in something they haven't done. I hope you will be next.

Acknowledgments

I have often skimmed this section and wondered why authors put down a list of names that many won't appreciate. Now I understand. Just as learning requires relationships, so does writing a book. These are just a few of those who have made this book possible.

My kids have been gracious to give up many of my evenings and weekends. Thank you. My brother, Bob, is probably glad this book is finally finished. Now we can spend our Tuesday calls talking about something else. Thank you for your patient ear. Mom, thank you for teaching me to read and write. I am grateful for both you and dad and the time you've spent assisting on this project. I learned so much about teaching from both of you. I'm glad Dad got to read the majority of this book, though I'm sad he never saw the finished product. What I wrote in the front of the book was what I had intended to write in his personal copy. Since he isn't here to read it, everyone gets to. To the rest of my family, both immediate and extended—many of whom became proofreaders by proxy—thank you for volunteering your skills.

Morten Tolstrup, thank you for pushing me to write and introducing me to Wiley. As an author yourself, you knew how much work this was going to be. Thank you for not telling me!

Dr Kevin Ressler, your feedback and encouragement was helpful and is appreciated. Jack Culbertson, I am so thankful for your help in making this book as practical as possible. It is better because of your input. Dianne Schanhaar, you have regularly encouraged me when I needed it most. Thank you.

Thank you, Rebecca Rosemeier and Sara Briggs for your help with the artwork used in this book.

So many others have encouraged me along the way. You have read and offered suggestions and feedback, corrected my grammar, or simply given a kind word of encouragement. I hesitate to mention some, knowing I will forget many: Thompson Lewis, Kristin Hinrichs, Jim Breezley, Christa Harrison, Jennifer Alfaro, Dave Gilbert, Dr David Farrar, Genevieve Farrar, Dr Will Thalheimer, Dr Brian Hanson, and Dr Jim Kirkpatrick. Thank you.

Finally, I'm not even sure how to write a proper thank-you to my wife, Brenda. I don't think I will. It would require too many pages. I'll find a better way. I love you.

