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T H E J O U R N A L O F S H & E R E S E A R C H

**Text Review: Guide to Evaluating the Effectiveness of  
Strategies for Preventing Work Injuries: How to Show  
Whether a Safety Intervention Really Works**

**Original Text by Linda S. Robson, Harry S. Shannon, Linda M. Goldenhar, and  
Andrew R. Hale**

**Review Submitted by Michael Behm, Ph.D.**



## **Section I: Name of text and authors**

Title: Guide to Evaluating the Effectiveness of Strategies for Preventing Work Injuries: How to Show Whether a Safety Intervention Really Works

Authors: Linda S. Robson, Harry S. Shannon, Linda M. Goldenhar, Andrew R. Hale

ISBN/Other: DHHS (NIOSH) Publication Number 2001-119

Publisher: Department of Health and Human Services, National Institute for Occupational Safety and Health

Price: Available free on-line at NIOSH's website at:

<http://www.cdc.gov/niosh/docs/2001-119/pdfs/2001-119.pdf>

## **Section II: Review of the table of contents**

The table of contents presents a logical flow of the concepts necessary to plan, design, measure, and make decisions regarding occupational safety and health interventions.

Chapter 1 provides a basic introduction to research and the intervention process.

Chapter 2 discusses the important features of proper planning. Chapter 3 explains before and after research designs including the threats to internal and external validity. Chapter 4 details the various experimental design and the advantages and disadvantages of each.

Chapter 5 examines the study sample and issues involved with workplaces and randomization. Chapter 6 and 7 explain measures and outcomes, including the use of qualitative data. Chapter 8 provides insight to statistical issues and Chapter 9 is a summary. Two appendices provide examples on planning and statistical analyses.

## **Section III: Review of content**

The aim of the book is to provide students, researchers, and practitioners with the concepts and tools required to conduct evaluations of injury prevention initiatives.

Determining whether an OSH intervention was truly effective is a challenging issue for practitioners and researchers. The primary audience of the book would be a graduate student, but certainly anyone interested in conducting and comprehending OSH research would benefit from this text. The content is professionally presented. Examples and key summary points at the end of each chapter are of high quality. The chapters are organized logically and allow readers to follow the research thought process from start to finish. The measuring outcomes chapter provides an interesting and useful discussion on the issues with the use of injury rates as measures to determine effectiveness. Alternative safety outcome measurements are offered which provides guidance to make applied research endeavors more practical and meaningful. There are no

This textbook is not a substitute for a statistics course, nor would it be appropriate for a statistics course. It is specifically designed for the study of OSH research methods. The teachability of the content must be augmented by students' own research inquiry, literature reviews, and readings. Real research examples provided by faculty or from other authors give balance and real world applicability to the textbook and its contents. In addition to OSH research examples, the following seven articles provide an excellent supplement to the NIOSH textbook.



1. Brown, K.A. (1996). Workplace Safety: A call for research. *Journal of Operations Management*, 14: 157-171.
2. Ferguson, L. (1999). An introduction to safety research. *Professional Safety – The Journal of the American Society of Safety Engineers*, 44(11): 26-28.
3. Geller, E.S. (2004) Assessing safety, health, and environmental research. *Professional Safety – The Journal of the American Society of Safety Engineers*, 49(9): 22-29.
4. Goldenhar, L. and Schulte, P. (1994). Intervention research in occupational health and safety. *Journal of Occupational Medicine*, 36(7): 763-775.
5. Shannon, H.S., Robson, L.S., and Guastello, S.J. (1999). Methodological criteria for evaluating occupational safety intervention research. *Safety Science*, 31: 161-179.
6. Rose, S. L. and Pietri, C. E. (2002). Workers as Research Subjects: A Vulnerable Population. *Journal of Occupational & Environmental Medicine*. 44(9): 801-805.
7. Zwering et al. (1997) Design and Conduct of Occupational Injury Intervention Studies: A Review of Evaluation Strategies. *American Journal of Industrial Medicine*, 32:164-179.

#### **Section IV: Overall recommendations**

This textbook is utilized in East Carolina University's required graduate course, Critical Thinking and Research Methods in Occupational Safety. The book provides students with a solid understanding of the basic issues in both conducting and comprehending OSH research. Overall, the textbook is well-written and is a good source for any student seeking to learn about research methods in OSH. The supplemental articles provided above are mandatory reading in the course as well as is successful completion of ECU's Institutional Review Board training for social science research. They complement student's learning are necessary in a course devoted to research methods, and are helpful to students seeking to pursue research options.

#### **Section V: Reviewer**

Michael Behm, PhD CSP  
Assistant Professor, Occupational Safety  
East Carolina University  
231 Slay Hall  
Greenville, NC 27858