



Research Design & Statistical Analysis in Christian Ministry

4th Edition

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Research Design and Statistical Analysis in Christian Ministry

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William R. “Rick” Yount

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to the faculty of
Southwestern Baptist Theological Seminary
and to the members of the
North American Professors of Christian Education Association
(NAPCE)
for use in mastering, or helping others to master,
the languages of scientific research and analysis.

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Preface

Fourth Edition

For **nineteen years**, material in this book has introduced students in the School of Educational Ministries, Southwestern Baptist Theological Seminary, to the fundamentals of scientific research and statistical analysis.

The book was written at the **request of students** who, at the time, used two published texts -- Borg and Gall's massive *Educational Research* 4th ed., and George Hinkle's *Basic Statistics*. Together, in 1986, these books cost \$90. What students asked for was a **more economical, and more focused**, text which comvered the material in the course. The 1st edition was written during my first sabbatic leave -- 1986-7. The three-ring bound text contained over 500 pages (including two sample research proposals) and cost, after bookstore mark-up, \$54.00. While this was a great savings from the \$90 students formerly paid, and the book focused student attention on essentials of the course, students were not happy to pay \$54 for a book in a three-ring binder! The 2nd edition trimmed down the size of the text, and, as a result, the cost was reduced to \$35.

Policy changes regarding faculty-written materials in the early 1990's moved the distribution of the text away from the bookstore, and into the seminary print shop. Students paid for the text by means of a course fee. Cost of the book was reduced to \$26, which included a penny per page for the author. The **3rd Edition was an extensive re-write**, with new diagrams and explanations.

Policy changes in 2005 led us to place these materials on the seminary's Blackboard web site for the free use of students. Returning to secular texts today would cost students nearly \$200 (and Christian publishers are not interested in a book on design and analysis!) So you find these materials on Blackboard!

The 4th Edition **remains a textbook**. It has not been re-formatted into a web-friendly appearance. Some color has been applied to highlight key ideas, but the materials are still meant to be downloaded and printed -- to be used as a written text. All known typos and errors in the 3rd edition have been corrected. The extensive **Table of Contents** is, in itself, a tool for organization and review.

You will note that most of the **references in the text are from the 1980's**. These have not been updated for the 4th edition. Perhaps in another lifetime... **These fundamental concepts have not changed**. The purpose of the text remains the same -- to provide insight into the languages of research design and basic statistical analysis, to frame your construction of a research proposal, and to reinforce your critical thinking skills.

May God bless you as you use this material to master the art and science of data collection and analysis -- for His Kingdom's sake!

W.R.Y.
December 2005

Preface

Third Edition

*Therefore go and make disciples of all nations,
baptizing them in the name of the Father and of the Son and of the Holy Spirit,
and teaching them to obey everything I have commanded you.
And surely I am with you always, to the very end of the age.
(Matt 28:19-20, NIV)*

*We are therefore Christ's ambassadors,
as though God were making his appeal through us.
We implore you on Christ's behalf: Be reconciled to God.
(2 Cor 5:20, NIV)*

We send missionaries -- ambassadors for Christ -- around the world to preach and teach the Gospel. They give themselves to learn the language of their people group, not only to communicate words, but to communicate their heart, and to establish credibility in themselves and their message.

There is a people group in our society who speak a foreign language, who write and publish and conference together in their language. A people group that, perhaps out of our own fear and prejudice, remains outside our missionary sphere. Many in this people group need the Savior, but their philosophy and perspective make them difficult to reach. They are **the people of secular science**, and the language they speak, the language they trust, is research.

Every year thousands of research articles appear in journals around the world. Most of these articles are written by people of secular science who view the world through secular eyes. **Their marketplace of ideas has limited input from Christians who do not speak the language of science.**

“Go and make disciples of all nations. . . .” Learn the language. Learn the people. Be an ambassador in their marketplace of ideas. Help them to see that science embraces all creation, but that faith embraces the Creator. Study your world objectively and communicate your findings credibly in the language of science, from a heart of faith.

This text is dedicated to helping you learn the language. To study the world. To dialogue in science’s marketplace. To share the Gospel on the journey.

W.R.Y.
June, 1999

Preface

First and Second Editions

A Fable From Far Away



ong, long ago, in a land many leagues from where you now reside, there existed a kingdom dedicated to the doing of Radishch. While all the people of the kingdom knew the value of good Radishch, only a few of the very best were admitted to apprenticeship. Apprentices -- subjected to rigorous training and arduous testing -- eventually mastered their craft, and became the Knights of the Normal Table. It would be they who would protect the quality of the kingdom's primary output, that of Radishch.

The Whiteheads among the Knights remembered the early years, when training in the arts of Radishch were subject primarily to the notions and guesses of the apprentices themselves. The divers kinds of arts, potions, spells, charms, and amulets were discovered in a hundred different scrolls, almost in happenstance fashion. Links between this potion and that charm or this amulet and that spell were discovered through reading, or jestive talking among the apprentices, or in some of the many seminars offered by the Masters of Radishch.

Apprentices would often put together what they considered an excellent treatise on some aspect of Radishch, only to find it did not include this element or that ingredient. Treatises varied greatly among the young apprentices, and even though many went on to become Knights of the Normal Table, others held that there must veritably be a better way to insure quality Radishch.

So back to the kingdom was brought by the Masters a young knight, who was given the task of gathering together in one place all the elements and ingredients, all the potions and charms, the amulets and spells, that lie scattered over the entire kingdom. This young Knight was also empowered to train the apprentices the art of Radishch, and to test them in order to verify that the apprentices did indeed know from whence they spoke.

Year upon year the young knight did work, gathering together in one scroll of scrolls all that apprentices should know and use in the art of Radishch. Finally the great scroll was completed. But alas, it did weigh a quarter-stone and cost the apprentices nearly a half-fortnight's wage.

"Dost thou mean that we must learn all that is contained within these broad-leafed pages?" they asked (for they did not have knowledge of the exceeding frustrations of the Whiteheads, who spent many more hours and many more fathings gathering the scattered wisdom for themselves). And the young knight said, "Yea, verily, it was for this reason I was brought back to the kingdom. If you will but put your minds to mastering this one scroll, you will possess all the elements and ingredients you will need to master Radishch, and become a Knight of the Normal Table."

Some did not believe the young knight, for he was perceived as having an unfair advantage. And so they did not study, nor did they toil. Rather did they gather and murmur at the heart-felt unfairness of the kingdom, and especially of the knight, who had written the scroll of substantial heftiness.

Many, however, did heed the words of the young Knight. Verily, they did immerse themselves in the waters of the scroll. They did cover themselves with the elements and ingredients of the book, until they began to see a world open to them they had never seen before. The treatises they did write were approved by the Masters with adulation. The Radishch of the kingdom continued to prosper. And the new Knights of the Normal Table went forth to produce Radishch in a way none had seen before in the collective memories of the elders.

So the moral of this fable is,

If you could stand on the other side of your thesis or
dissertation and look back, you would see the value of this
book in a way you cannot fathom at this moment.

Trust me.

This textbook has grown out of my experiences as a student and as teacher. **As a student**, I have struggled with the myriad problems and obstacles one faces when writing a dissertation proposal. **What should I study? What approach should I take? How do I prepare to defend my proposal before The Committee?**

I have done all of this twice -- once for the graduate faculty of the School of Religious Education at Southwestern, and all over again for the graduate faculty of the School of Education, University of North Texas. Time after time I found myself groping in darkness for help.

As a teacher of research and statistics, my aim is to prepare you to handle the entire process of problem selection, research development, proposal organization, proposal implementation, and data analysis. I have not been satisfied with existing texts. "This one" focuses on research design while "that one" focuses on statistical procedures. Never do we need to cover all of the material in either text, but we do need to use large portions in both. Requiring students to purchase two books (costing as much as \$90) and then omitting whole chapters from both of them never appealed to my sense of fair play.

This textbook addresses fundamental questions of how we come to know about our world. It structures a clear view of the research design process, especially as it relates to the study of Christian ministries. It relates statistical procedures to the kinds of data you may choose to collect. It provides helpful suggestions from a "from-one-whose-been-there" perspective.

W. R.Y.
August 1988

About the Author

Dr. William R. “Rick” Yount is Professor and Assistant Dean, Foundations of Education, School of Educational Ministries, Southwestern Baptist Theological Seminary, in Fort Worth, Texas. He has been a member of the education faculty since 1981. He teaches courses in research and statistics as well as principles of teaching, educational psychology, and, occasionally, the teaching ministry of the church.



Since 1996, Yount has travelled to various republics of the former Soviet Union to teach pastors and missionaries principles of teaching and learning.

Yount and his wife Barbara were married in 1969. Barb teaches American Sign Language at Crowley High School, Crowley, Texas, having earned her Master’s degree in deaf education in 1985. Their daughter, Bonnie, born in 1978, married Robert Lampasona (1999) and working as a medical scheduler at John Petere Smith hospital in Fort Worth. Robert is a corporate General Manager for CiCi’s Pizza. Their son, Chris, born in 1981, married Meredith Jones (2005), and works as a staff accountant at EmCare corporation in Dallas. Meredith is studying to become a Physician’s Assistant.

Yount received the Doctor of Education (Ed.D.) degree in Foundations of Education from Southwestern Seminary in December 1978, and the Doctor of Philosophy (Ph.D.) degree in Educational Research from University of North Texas in 1985.

Church experience includes eleven years ministry among the deaf, five years as full time minister of education at Columbia Baptist church, Falls Church, Virginia, and sixteen years as interim minister of education in five churches. His present ministry outside the seminary focuses on teaching an “empty nesters” class at Wedgwood Baptist Church in Fort Worth.

Yount has written four books besides this present volume: *Be Opened! Introduction to Ministry with the Deaf* in 1976, *The Disciplers’ Handbook: From Transmitting Lessons to Transforming Lives in Sunday School* in 1979, *Created to Learn: A Christian Teacher’s Introduction to Educational Psychology* in 1996, and *Called to Teach: An Introduction to the Ministry of Teaching* in 1999. All but the *Disciplers’ Handbook* were published by Broadman & Holman, Nashville, Tennessee.

He has just finished (December 2005) the manuscript on a new text, *Called to Reach: Characteristics of a Cross-Cultural Discippler*, which Broadman and Holman will publish in January 2007. Dr. Mike Barnett of Columbia International Seminary is co-author.

Hobbies include Russian, computers, and chess. But what he really enjoys is seeing the “ah-HA”s on the faces of students who see how it all fits together . . . day by day.

For stories and pictures from his teaching trips to the former Soviet Union, go to <http://members.aol.com/wyount>

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