

Dr. William J. Boone

Full Professor

Specializing in Evaluation, Measurement and Statistical Analysis

Ph.D. University of Chicago (1991)

M.S. University of Wisconsin-Madison (1985)

B.S. Indiana University-Bloomington (1982)

Dr. Boone holds the rank of full professor in Miami University's Department of Educational Psychology. In 2012 Dr. Boone was named a Fulbright Scholar. Dr. Boone's research interests include the use of techniques and methodology to design, analyze, and revise questionnaires, surveys and tests. His current work emphasizes instruments (e.g. questionnaires, surveys and tests) used in the fields of business (market research), health care, and education. In his research Dr. Boone frequently explores the development of techniques to better communicate analysis findings to stakeholders. Professor Boone also frequently addresses how to 1) improve the efficiency of data collection, 2) provide succinct actionable guidance for decision makers, 3) reduce the cost per response, and 4) increase response rates. Groups using his guidance have been able to increase the quality of their data even with large fluctuations in respondent sample compositions and participation over time. His expertise has allowed organizations with an interest in the evaluation of questionnaire data to lower the per item cost of response data collection while improving the quality of actionable guidance.

Dr. Boone has worked within the field of questionnaire/survey design and analysis over 20 years. During that time he has evaluated more than 750 survey instruments which have targeted samples of respondents ranging in age from 5 years to adult. Selected instruments have also targeted respondents as a function of gender and ethnicity. He has been asked to provide evaluation, measurement and statistical analysis expertise to numerous individuals and organizations. Analyses have been supported by groups such as the American Board of Pediatric Dentistry, Hewlett Packard, DOW Chemical, Cincinnati Children's Hospital, the University of Cincinnati College of Medicine, the National Aquarium in Baltimore, the Cincinnati

Museum of Natural History, the National Science Foundation, the United States Department of Education, the National Institutes of Health, the State of Ohio, the Indianapolis Public School district, private consulting companies, evaluation centers, and many universities (for example, Ohio State University, University of Missouri-Columbia, University of Utah, University of Cincinnati, University of Illinois-Chicago, Baylor University, Cornell University, Indiana University, Purdue University, Universität Duisberg-Essen, Munich's Ludwig-Maximilians Universität, Universität Trier, Georg-August-Universität Göttingen, Pädagogische Hochschule Zürich, Leibniz Universität Hannover, Freie Universität Berlin, Universität Osnabrück, Christian-Albrechts-Universität zu Kiel). Dr. Boone's experience also includes leading a statewide evaluation center. That center provided evaluation services to entities throughout the country seeking both the collection and analysis of qualitative and quantitative data. Dr. Boone also is a frequent attendee at the University of Cincinnati's Center for Clinical Effectiveness weekly seminar. That center and seminar brings together researchers from many disciplines to explore the analysis of health care data.

Dr. Boone is the co-editor of a recent book *Rasch Measurement in Science Education* considering the use of psychometric techniques for the evaluation of questionnaire/survey and test data. He is also the lead author of a forthcoming book to be published by Springer (tentatively titled: *Rasch Analysis-A Beginner's Guide*). During his career at Indiana University and at Miami University he has authored and co-authored over 90 publications and reports. His CV lists over 125 professional presentations. He has served on the editorial review board of many peer reviewed scholarly journals. Many researchers throughout North America and from elsewhere in the world (e.g. South Africa, Croatia, Turkey, Pakistan, China, India, Lebanon, Germany, Austria, Switzerland) have solicited his guidance.

Dr. Boone has received numerous awards throughout his career honoring his analytical and communication skills. As a graduate student, Dr. Boone received the Rosenberg award honoring the University of Chicago MESA (Measurement, Evaluation and Statistical Analysis) graduate student displaying the most meritorious achievement during the first year of graduate work.

While a graduate student at the University of Chicago Dr. Boone completed course work with notable faculty including Larry Hedges (currently a Northwestern University Board of Trustees Professor of Statistics and Social Policy), Anthony Bryk (currently President of the Carnegie Foundation for the Advancement of Teaching), Nancy Stein (University of Chicago Professor of Psychology) and Benjamin Wright (University of Chicago Professor of the Measurement, Evaluation and Statistical Analysis Program, former Director of the University of Chicago's Psychometric Laboratory). Hedges and Wright (Ph.D. Director) served on Dr. Boone's Ph.D. committee.

At both Indiana University and Miami University Dr. Boone has helped guide M.S. and Ph.D. thesis projects which used statistical and psychometric techniques for the analysis of questionnaire/survey data. Dr. Boone teaches graduate level courses in measurement/psychometrics, statistics, advanced research design and program evaluation. Dr. Boone also teaches a course to undergraduates which presents the basics of evaluation and assessment.

He is well versed in the use of SPSS software for the analysis of survey data (frequency distributions, graphic presentations, analysis of central tendency, variability, correlation, analysis of variance, chi-squared computations utilizing crosstabs). Additionally, he is an expert in the use of advanced survey analysis software which facilitates, in part, the use of the Rasch model to compute logit scale scores. Such scores (outcome measures) are now being utilized by researchers in business, health care and education prior to parametric statistical tests. Dr. Boone is also an expert in the use of techniques that facilitate the evaluation of questionnaire validity (construct, content, predictive, criterion, face) and questionnaire reliability (test-retest, alternate form, person separation, item separation, split-half). In addition to strong analytical and teaching skills. Dr. Boone speaks conversational German. He lived for a year in Bonn, Germany and for a year in Oxford, England. He frequently presents Rasch workshops throughout Europe.

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Professor Specializing in Evaluation, Measurement and Statistical Analysis in
the Fields of Business, Healthcare, and Education
Department of Educational Psychology

Suite 100F McGuffey Hall
Miami University
Oxford, OH 45056

boonewj@muohio.edu
boonewjd@gmail.com