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<b>Quantitative Research in Linguistics: An Introduction</b>		
<b>Author:</b>	Sebastian M. Rasinger (2008)	
<b>Publisher:</b>	London: Continuum International Publishing Group	
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Sound empirical research is a cornerstone of any scientific discipline, and applied linguistics complies with this tradition. Most programs in Applied Linguistics or TESOL offer a research course, and conducting quantitative and qualitative research is a component of careers in this field. Contributions to research have been made in the form of instructional manuals that are used by both students and practitioners. Such seminal volumes include Hatch and Lazaraton’s *The research manual* (1991), Brown and Rogers’ *Doing second language research* (2002), Mackey and Gass’ *Second language research* (2005), and Dornyei’s *Research methods in applied linguistics* (2007). Following in the footsteps of these books is Sebastian Rasinger’s *Quantitative research in linguistics: an introduction* (2008).

Rasinger’s text fills a void in the existing resources listed above, as it is suited for a more novice population than are the others. His personal background as an applied linguistics instructor and a researcher grant him insight into the background knowledge and skills that students and practitioners in the field need. In his introduction, Rasinger includes a personal anecdote describing a conversation with his M.A. students, and he notes their lack of appreciation for empirical methodology and over reliance on intuition in discussing language teaching issues. His introduction, in fact, states that the book is intended to be a primer for those with limited or no prior knowledge of quantitative methods. He also writes that the volume can be used as a guidebook for leading readers step by step through the design, implementation, and evaluation of a simple quantitative research study. Rasinger also

identifies three principal groups as his intended audience: colleagues and students with a fear of numbers, linguists who rely on paper calculations for statistical computations instead of capitalizing on existing software, and students who need an introduction to quantitative methodology in order to strengthen their projects.

The book is divided into ten chapters comprised of an introduction and two parts: the first dedicated to the fundamentals of quantitative research, and the second addressing statistical tools used in this type of research in the field of linguistics. Chapters in the first section (2-4) treat such topics as types of variables, reliability and validity of variable measurement, choosing a research design appropriate for the research question, and an in-depth treatment of questionnaires as they are commonly used in the field. The second section (Chapters 5-9) investigates descriptive statistics, testing relationships between variables using standard statistical tools, significance testing, and analysis of non-normal data. The last chapter contains exercises with answer keys and statistical tables. Rasinger's choice and range of topics seems appropriate for an introductory quantitative methodology text.

Rasinger's strengths reside in his ability to explain potentially challenging material to his audience, and he accomplishes this goal by fostering connections to readers' contexts and by formatting text in an attractive and easy to process manner. Given that this volume is intended specifically for practitioners and students of applied linguistics, it is appropriate that Rasinger chooses field-specific examples to explain terms and concepts. For example, he illustrates the difference between quantitative and qualitative analysis by describing how these approaches would differ in their treatment of an issue that might be familiar to readers: that of sociolinguistic factors that influence pronunciation of the segmental /h/ in spoken British English. The same linguistic-specific exemplification strategy is applied in his treatment of dependent and independent variables and their operationalization in a research study. In explaining other concepts, Rasinger chooses more quotidian examples, such as comparing reliability to a cake recipe, which makes these ideas more accessible to a novice audience. In addition, he provides similarly effective explanations of obtuse statistical concepts like degrees of freedom and one versus two tailed significance tests by deconstructing them and referring the reader to the included statistical tables. Finally, the layout and textual organization of the chapters is particularly effective; each one begins with a chapter outline and keywords enclosed in boxes that allow for quick visual scanning of content.

While the book's material is accessible in terms of explanation and formatting, the organization could benefit from the definition of key terms at an earlier stage. For example, in the first section, Rasinger provides correlational studies as an example of quantitative research in linguistics. However, he does not use this term but rather describes correlation in a rather non-technical way, stating simply that these studies show how two variables are related. It seems that students might benefit from exposure to key terms in the beginning chapters, even if their in-depth explanation is delayed until later ones. Similarly, the idea of significance is not introduced until well into the inferential statistics discussion (Chapter 7). The organization of this chapter

would benefit from introducing and defining the concept of significance earlier, as this idea is central to the understanding of why inferential statistics are performed in linguistic studies. By delaying the technical discussion, and in some cases even the introduction, of key terms beyond what seems rational, Rasinger creates a book that must be read sequentially instead of as a reference.

The flawed treatment of key terms may be of consequence for students, but Rasinger's book also seems impractical for one of his stated audiences: researchers in the field who are well versed in quantitative methodology but are not accessing available software for statistical analysis. The discussion of non-normal data is weak considering that this audience is likely publishing research studies. Rasinger provides no discussion of the implications of including non-parametric data in research reports, and a treatment of the decision to submit this type of data would be relevant in this chapter. Additionally, methods for identifying non-parametric data are limited to line graphs and scatterplots, which may not be sufficient data in all cases for making the choice to conduct non-parametric equivalency tests.

Finally, Rasinger explicitly states in his introduction that he would like to provide more efficient options for researchers who conduct their statistical analysis with a paper and pencil. It seems strange, then, that the only software package he mentions is Microsoft Excel. Relying on this program limits researchers to data entry, descriptive frequency statistics, and correlation. While Rasinger provides step by step, accessible explanations of how to perform the above mentioned calculations in Excel, the treatment of significance testing is limited to hand calculations using provided tables of critical values. Providing explanations for using a common statistical software package like SPSS would have greatly enhanced this book. If licensing and availability of programs like SPSS are perceived as an issue, Rasinger could have alternatively included a discussion of a universally available free application like R.

Given these limitations in usefulness for linguists conducting research, Rasinger's book seems best suited for an undergraduate or graduate audience of students in applied linguistics. Although the organization has minor issues, the book provides a comprehensive treatment of basic terms and concepts in quantitative research for applied linguistics. Rasinger accomplishes his goal of creating a volume that is an accessible, non-threatening, and user-friendly guide for novice linguists with little background in research.

## **References**

Brown, J.D. & Rodgers, T.S. (2002). *Doing second language research*. New York: Oxford.

Dornyei, Z. (2007). *Research methods in Applied Linguistics: Quantitative, qualitative, and mixed methods*. New York: Oxford.

Hatch, E. & Lazaraton, E. (1991). *The research manual: Design and statistics for Applied Linguistics*. New York: Newbury/HarperCollins.

Mackey, A. & Gass, S.M. (2005). *Second language research: Methodology and design*. Mahwah, New Jersey: Lawrence Erlbaum Associates.

Rasinger, S. (2008) *Quantitative research in linguistics: An introduction*. London: Continuum International Publishing Group.

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