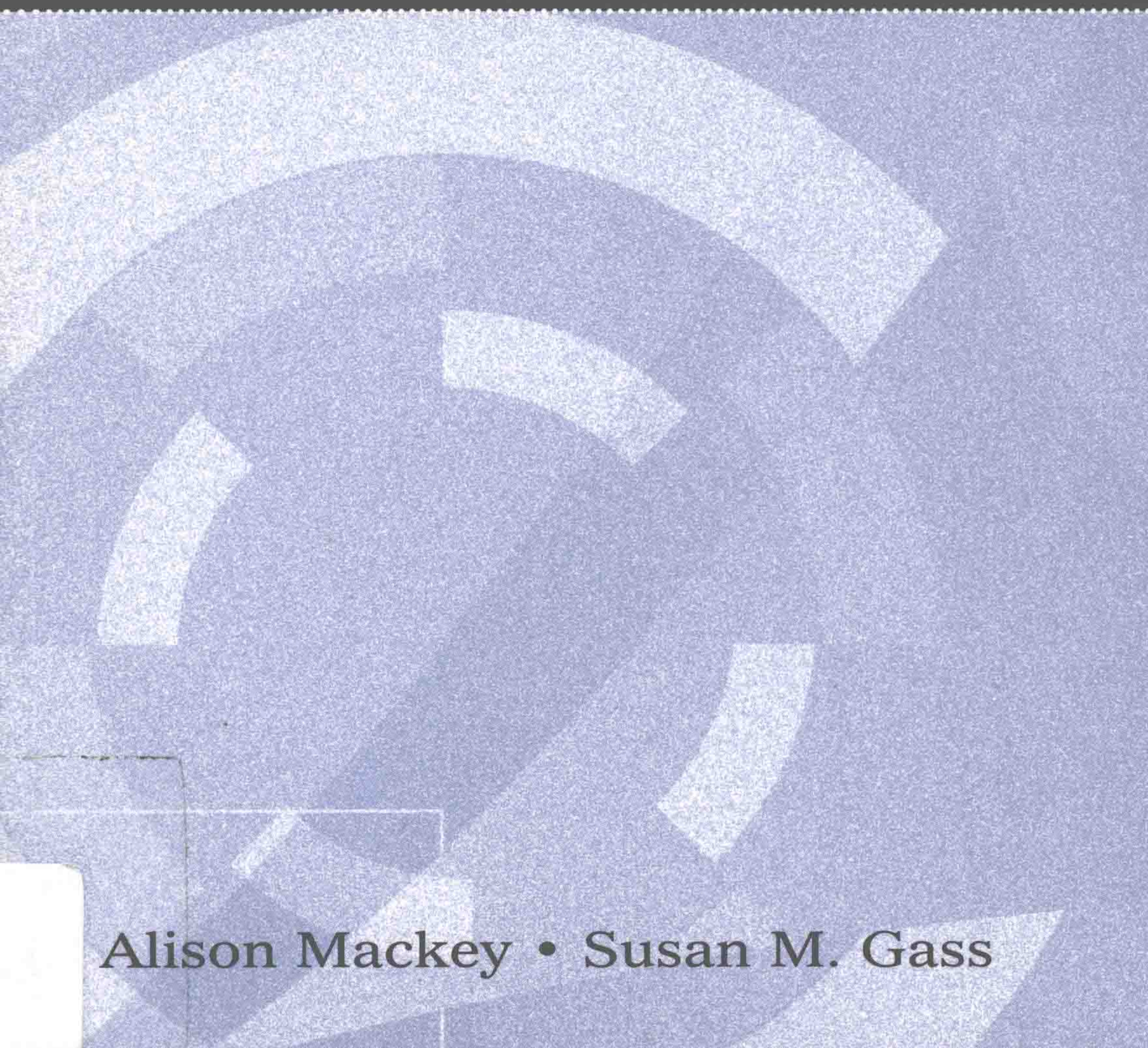


SECOND LANGUAGE RESEARCH



Methodology and Design



Alison Mackey • Susan M. Gass

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Preface

This book addresses issues of research methodology. It is designed to be used as a textbook for introductory courses on research methodology and design, as well as for general courses in second language studies in which there is an emphasis on research. We have aimed to create a text that can also be used as a resource by those carrying out many different types of second language research.

We approached the book with novice researchers in mind. For this reason, we explain key concepts and provide concrete examples wherever possible for those with little or no research experience. However, we also assume that our readers will have some background in the topic of second language learning. The discussion and data-based questions and activities at the end of each chapter are aimed to promote better understanding of the concepts as readers work through the book. We also include a detailed glossary to aid researchers who prefer to use the book more as a resource than a text.

We have tried to take a broad and inclusive view of what is meant by ‘second language’ research. For this reason, our examples reflect concepts from a variety of perspectives in the second language research field. The book is designed to address issues important for research in both second and foreign language settings, child second language learning, bilingual language learning, as well as the acquisition of second and subsequent languages. We have attempted to cast a similarly wide net in our coverage of topics; for example, we include research design issues that range from the use of highly experimental data elicitation tools to qualitative concerns to teacher-initiated research in classrooms. We also include topics of recent interest in the field, such as dealing with university, institutional, and school review boards that grant permission for data gathering from human subjects. Although our goal is to acquaint readers with the basic issues, problems, and solutions involved in conducting second language re-

search, we believe that some of the content of the book is also relevant to a wider applied linguistics context. In other words, some issues of design are common to many areas of applied linguistics research, even though a particular example may not always be.

Although the book focuses specifically on issues of research design and methodology, we have included one chapter that focuses on statistics. Because the field of statistics is so broad and has its own specialized texts and courses, we provide only a simple overview of some of the basic concepts in this area. For those who intend to conduct detailed statistical analyses, we recommend coursework, expert consultations, and other comparable means of learning about advanced statistics, including statistics textbooks. We do not include specific recommendations about particular statistics texts because the selection of the text depends on the focus of the research problem. Second language research can focus on educational or pedagogical practice or on theory building; it can address issues from a variety of perspectives, including psychology, sociology, linguistics, and bilingualism. We suggest that users of this book consult one of the many appropriate statistics books available.

It is always difficult to decide on the order in which to present information. One researcher's ordering of material and chapters might not coincide with the preferences of another researcher or reader. We have placed information on data gathering at the beginning of the book due to the fact that our experience in teaching research methods courses over the years has led us to believe that researchers need to think about where data come from at the outset of a project, and also to think about how data are gathered before becoming immersed in some of the more technical issues of design. In this book, then, issues of data gathering serve as an anchor for later chapters. Of course, when using the book as a text, we hope that instructors will adapt the book and reorder chapters to match their particular syllabus and preference for presentation. For this reason, we have aimed for each chapter to work as a standalone introduction to the area it covers.

We are grateful to many individuals for their support in this project that ended up, like most projects of this sort, having a longer history than we had originally anticipated. We first thank the many students we have had in different classes over the years who have not hesitated to provide feedback on our various syllabi and our sequencing of materials as well as the designs of our own research. Rebekha Abbuhl and Ildikó Svetics made many valuable contributions to the process, including library work, feedback, and editing, always providing careful attention to content and detail throughout. Several reviewers also provided us with numerous useful ideas and suggestions on our proposal. We greatly appreciated the time and effort that went

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Introduction to Research

What is meant by research, and how do we identify good research questions? These are questions that are not always easy to answer, but we anticipate that by the end of this book you will be in a better position to think about them. This book is intended to be practical in nature, aimed at those who are involved in second language studies and second/foreign language teaching. We recognize that many people are often put off by the word *research*, including teachers who have been teaching for quite some time but are not involved in research, and those who are just beginning in the field. We hope to demystify the process.

The *American Heritage College Dictionary* defined *research* as “scholarly or scientific investigation or inquiry” or as a verb “to study (something) thoroughly” (2000). Thus, in its most basic and simplest form, research is a way of finding out answers to questions.

We begin by reminding the reader that we are all involved in research every day. For example, consider what is probably part of many of our lives—being stuck in a traffic jam. As we find ourselves not moving on a freeway, we ask why this has happened and come up with a hypothesis (e.g., because there is an accident ahead, or because it is 5:00 P.M. on a Friday afternoon). We then seek verification of our hypothesis by waiting patiently (or impatiently) until the traffic starts moving again. If we see an accident or the flashing lights of an emergency vehicle, we can confirm or at least strengthen our hypothesis. In the absence of an accident, we might conclude that it must be typical rush hour traffic. In other words, every day we ask questions, come up with hypotheses, and seek confirmation of those hypotheses.

In this chapter, we outline what readers can expect from a typical research report and discuss the process of generating research questions and formulating hypotheses. We conclude the chapter by discussing issues of feasibility and the importance of replication in second language research.

1.1. DIFFERENT TYPES OF RESEARCH

There are many approaches to dealing with research. Two of the most common are known as *quantitative* and *qualitative*, although this distinction is somewhat simplistic as the relationship is best thought of as a continuum of research types. Quantitative research generally starts with an experimental design in which a hypothesis is followed by the quantification of data and some sort of numerical analysis is carried out (e.g., a study comparing student test results before and after an instructional treatment). Qualitative studies, on the other hand, generally are not set up as experiments; the data cannot be easily quantified (e.g., a diary study in which a student keeps track of her attitudes during a year-long Japanese language course), and the analysis is interpretive rather than statistical. As mentioned previously, this is an overly simplistic view because one can imagine a number of variations on this theme. In general, however, quantitative and qualitative research can be characterized as shown in Table 1.1 (based on Reichardt & Cook, 1979).

In this book we attempt to be as inclusive as possible and cover as many research types as possible.

Grotjahn (1987) pointed out that there are many parameters that can be used to distinguish research types, including the type of data (quantitative or qualitative), the method of analysis (interpretative or statistical), and the

TABLE 1.1
Characteristics of Quantitative and Qualitative Research

<i>Quantitative Research</i>	<i>Qualitative Research</i>
<ul style="list-style-type: none">• Obtrusive, involving controlled measurement• Objective and removed from the data• Verification oriented, confirmatory• Outcome-oriented• Reliable, involving “hard” and replicable data• Generalizable• Assuming a stable reality	<ul style="list-style-type: none">• Naturalistic and controlled observation• Subjective• Discovery oriented• Process oriented• “Soft” data• Ungeneralizable, single case studies• Assuming a dynamic reality• Close to the data

manner of data collection (experimental or nonexperimental [naturalistic]). He outlined six “mixed” forms, as shown in Table 1.2.

To understand the two ends of the continuum—namely “purely” quantitative and “purely” qualitative studies—consider the following abstracts of two research reports.

Quantitative Research

Interaction has been argued to promote noticing of L2 form in a context crucial to learning—when there is a mismatch between the input and the learner’s interlanguage (IL) grammar (Gass & Varonis, 1994; Long, 1996; Pica, 1994). This paper investigates the extent to which learners may notice native speakers’ reformulations of their IL grammar in the context of dyadic interaction. Thirty-three adult ESL learners worked on oral communication tasks in NS–NNS pairs. During each of the five sessions of dyadic task-based interaction, learners received recasts of their nontargetlike question forms. Accurate immediate recall of recasts was taken as evidence of noticing of recasts by learners. Results indicate that learners noticed over 60–70% of recasts. However, accurate recall was constrained by the level of the learner and by the length and number of changes in the recast. The effect of these variables on noticing is discussed in terms of processing biases. It is suggested that attentional resources and processing biases of the learner may modulate the extent to which learners “notice the gap” between their nontargetlike utterances and recasts. (Philp, 2003, p. 99)

This description meets the criteria of a quantitative study: it has quantitative data, it analyzes the data and provides results based on statistics, and the data were collected experimentally.

Qualitative Research

This ethnographic report “thickly describes” (Geertz, 1973) the participation of ESL children in the daily classroom events of a mainstream first-grade classroom. Data for this paper come from a year-long study of one classroom in an international school on a college campus in the U.S. Using a language socialization and micropolitical orientation, the report describes how, through socially significant interactional routines, the children and other members of the classroom jointly constructed the ESL children’s identities, social relations, and ideologies as well as their communicative competence in that setting. The sociocultural ecology of the community, school, and classroom shaped the kinds of microinteractions that occurred and thus the nature of their language learning over the course of the year. (Willett, 1995, p. 473)

TABLE 1.2
Six Mixed Forms of Research

Type of Research	Form of Data		Method of Analysis		Manner of Data Collection	
	Quantitative	Qualitative	Statistical	Interpretative	Experimental/ Quasi-Experimental	Nonexperimental
Experimental-qualitative-interpretative		✓		✓	✓	
Experimental-qualitative-statistical		✓	✓		✓	
Experimental-quantitative-interpretative	✓			✓	✓	
Exploratory-qualitative-statistical		✓	✓			✓
Exploratory-quantitative-statistical	✓		✓			✓
Exploratory-quantitative-interpretative	✓			✓		✓