Introduction

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There has been considerable research since the 1970s on sign languages from linguistic, psycholinguistic, and – more recently – neurolinguistic perspectives. Alongside the substantial literature on sign language in specialist journals and books, there is also a growing embedding of sign language research in mainstream conferences in these fields, as well as in linguistic and psychology books and journals. Increasingly sign language is seen as a "natural experiment" for testing how particular theories respond in the light of studies on language in the visual–gestural modality (e.g., Vigliocco, Perniss & Vinson, 2014. http://rstb.royalsocietypublishing.org/content/369/1651. toc). The UK government's *Cognitive Systems Report* (2003, p. 9) stated: "A more dramatic type of cross-linguistic contrast that may be uniquely valuable in elucidating the underlying properties of speech and language, comes through the comparison between spoken languages and native sign languages, such as BSL (British Sign Language)." The report went on to identify the investigation of features common to how the brain processes spoken language and sign language as one of the six key questions facing language researchers.

Even with this flourishing of interest in sign language and despite the recognition of the importance of this field, no general text on fieldwork or research methods for researchers has yet been published. The aim of the current volume is to summarize all the relevant methodologies in sign language research and to provide a detailed synopsis of how to conduct social, linguistic, psycholinguistic, and neurolinguistic research. Each chapter is written by a specialist in the field and explains the "how" to other sign language researchers, as well as to mainstream language scientists who may consider incorporating sign language research into their research and teaching

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programs. Importantly, the authorship of the chapters also represents collaboration between Deaf and hearing authors.

To the researcher entering the field of sign language as well as to the experienced sign language researcher, the volume provides a thorough review of research methods in key areas of study (sociolinguistics, psycholinguistics, and so on). In particular, new researchers will become familiar with how to appropriately approach the study of a minority language and community that has its own cultural features and how to work with Deaf colleagues and with the Deaf community. They will learn how to deal with practical issues and with the challenges of data collection and analysis of a visual–manual language. Lastly, they will be informed as to what types of databases, tools, and methodologies are available to the sign language researcher and how these can be used to address important research questions.

The book is divided into five sections. Part I, "Collecting Data WITH the Deaf Community," sets the scene for research in this field by addressing the ethical and political issues that arise in working with a community that can be considered both a minority linguistic group and a group with a disability. Chapter 1, by Jenny Singleton, Amber Martin, and Gary Morgan, addresses ethical issues involved in studying sign languages – including the consideration of "deaf-friendly" research. In Chapter 2 Thomas Allen discusses the need and benefit of approaching research from a diversity rather than disability perspective. In Chapter 3 Robert Adam considers how to achieve knowledge exchange between communities of researchers and Deaf communities.

Part II, "Different Ways of Collecting Sign Language Data," covers the methodologies required to capture sign language data. It starts with Pamela Perniss describing the requirements for video annotation software that permits time-locked video and coding. In the following chapter Onno Crasborn describes the range of transcription and notation methods appropriate for use with sign language data captured on video. The final chapter in Part II is Martha Tyrone's description of instrumented measures of sign production and perception: motion capture, movement analysis, eye tracking, and reaction times.

Part III, "Collecting Linguistic Data on Sign Languages," comprises six chapters that cover the main methods used in the various fields of sign linguistics research. Victoria Nyst describes methods of sign language fieldwork. Rachel Channon discusses methods for phonological research, while Carol Padden describes methods for grammatical studies. In the next two chapters of Part III, Jordan Fenlon, Adam Schembri, Trevor Johnston and Kearsy Cormier present documentary and corpusbased approaches, while Nick Palfreyman, Keiko Sagara and Ulrike Zeshan describe typological research methods. Finally, Joseph Hill describes the range of methods used in sociolinguistic research with Deaf communities (Chapter 12).

Part IV, "Collecting Cognitive Data on Sign Languages," covers methods used in developmental, psycholinguistic, and educational research. Chapter 13, by Jill Morford, Brenda Nicodemus, and Erin Wilkinson, reviews the range of research methods in psycholinguistic investigations of signed language-processing. Ronice Müller de Quadros, Deborah Chen Pichler, Diane Lillo-Martin, Carina Rebello Cruz, L. Viola Kozak, Jeffrey Levi Palmer, Aline Lemos Pizzio and Wanette Reynolds discuss research methods in bimodal bilingualism (Chapter 14). This is followed by a chapter on methods in sign language acquisition research, by Amy Lieberman and Rachel Mayberry. The section is completed by Fiona Kyle's discussion of research methods in studying reading and literacy development in deaf children who sign (Chapter 16).

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The final section of the book, Part V, "Collecting Brain Data on Sign Languages," considers methodology used in neuroscience and neuropsychological studies of sign languages. The section begins with a discussion of methods in functional imaging research – fMRI, ERP, MEG, and TMS – by Cheryl Capek and Helen Neville. Peter Hauser, David Quinto-Pozos, and Jenny Singleton's Chapter 18, next, reviews atypical sign language users and neuropsychological approaches to data collection. The final chapter by Tanya Denmark and Jo Atkinson describes methods used in linguistic and cognitive assessment of typical and atypical sign language users.

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Note

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