Productive Multivocality in the Analysis of Group Interactions
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The Computer-Supported Collaborative Learning Book Series is for people working in the CSCL field. The scope of the series extends to ‘collaborative learning’ in its broadest sense; the term is used for situations ranging from two individuals performing a task together, during a short period of time, to groups of 200 students following the same course and interacting via electronic mail. This variety also concerns the computational tools used in learning: elaborated graphical whiteboards support peer interaction, while more rudimentary text-based discussion forums are used for large group interaction. The series will integrate issues related to CSCL such as collaborative problem solving, collaborative learning without computers, negotiation patterns outside collaborative tasks, and many other relevant topics. It will also cover computational issues such as models, algorithms or architectures which support innovative functions relevant to CSCL systems.

The edited volumes and monographs to be published in this series offer authors who have carried out interesting research work the opportunity to integrate various pieces of their recent work into a larger framework.
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This book is about a long-term collaborative effort known as the “productive multivocality project” that sought to engage researchers from different analytic traditions (i.e., multiple “voices”) in productive dialogue with each other while analyzing shared data from group interactions in collaborative learning settings. It will be of interest to persons who want to understand and collaborate with colleagues from other traditions, to students who want to broaden their understanding of theoretical and methodological traditions available to them and how they might be brought into coordination, and to researchers who are interested in the particular learning settings and analytic results found in the five data corpora and associated analyses that make up the body of the book. Most significantly, the book offers a vision of how fields of study (such as the learning sciences) that are comprised of diverse traditions can counter tendencies towards fragmentation and achieve some level of coherence.

This first section of the book introduces the reader to the project on which this book is based and provides a guide to the book. Chapter 1, “The Productive Multivocality Project: Origins and Objectives,” introduces the concept of multivocal analysis and why it is needed in the learning sciences, provides a brief historical account of the collaborations (series of workshops) out of which this work arose, and previews some of the major lessons learned in the form of problems encountered and strategies that we found useful for avoiding these problems while engaging analysts from multiple traditions with each other. Chapter 2, “Methodological Dimensions” details dimensions we used in our project and use throughout the book for describing different approaches to the analysis of interaction. Finally, Chap. 3, “A Readers’ Guide to the Productive Multivocality Project,” provides a preview of the book and a guide to using it as a resource for different purposes (e.g., for researchers who want to undertake multitradition collaborations themselves or students who want to learn about different analytic traditions). Perusal of Chaps. 1 and 3 should enable the reader to make effective use of the rest of the volume.
Chapter 1
The Productive Multivocality Project: Origins and Objectives

Daniel D. Suthers

The key idea of this volume is that scientific and practical advances in an area of study can be obtained if researchers working in multiple traditions—including traditions that have been assumed to be mutually incompatible—make a concerted effort to engage in dialogue with each other, comparing and contrasting their understandings of a given phenomenon and how these different understandings can either complement or mutually elaborate each other. Incompatibilities may remain but at least are reduced to essential and possibly testable differences once the noise of nonessential differences has been reduced. This key idea potentially applies to many fields, particularly in the social and behavioral sciences in which no single tradition has established primacy. The present volume offers case studies and insights of interest to anyone concerned with understanding the coordinated use of multiple methods but goes beyond mixed methods to address the coordinated joint work of diverse methodologists or the discourse within a diverse or “multivocal” discipline.

The researchers involved as editors and authors in the present volume work in the areas of collaborative learning, technology-enhanced learning, and cooperative work. We share an interest in understanding group interactions, including interactions mediated by various technologies ranging from paper and pencil to online environments. We approach this topic from a variety of traditional disciplinary homes and theoretical and methodological traditions that converge in a “field” known as computer-supported collaborative learning (CSCL) (Koschmann, Hall, & Miyake, 2001), the study of how interaction leads to learning with the support of designed artifacts. CSCL is situated more generally in the learning sciences (Sawyer, 2006), the interdisciplinary study of human learning and of the design and implementation of innovations and methods in support of learning and instruction.

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In addition to the methodological project behind the key idea, this volume also offers research contributions within CSCL and the learning sciences.

The diversity of CSCL is salient to anyone involved in the conference series or journal that bears this name. The CSCL community is an international community (Kienle & Wessner, 2006) consisting of researchers, designers, and practitioners from computer science, education, educational psychology, human–computer interaction, and psychology as well as linguistics and other educational, information, learning, and social sciences (Wessner & Kienle, 2007). Hence numerous theoretical frameworks and methodological traditions drive work in this community to the extent that one can question whether it can be called a single field of study.

We take the term multivocal from Bakhtin (Bakhtin, 1981; Koschmann, 1999), who used it to describe the presence of multiple “voices” that can be discerned in texts. Here the “text” is the collective discourse of those who identify with the CSCL community and its core values. This multivocality is a strength only to the extent that there is sufficient commonality to support dialogue between the voices and reach some degree of coherence in the discourse of CSCL (Suthers, 2006). The learning sciences and CSCL are too diverse (theoretically and methodologically) for unification to be possible. Moreover, unification is not at present even desirable—diversity is our strength in exploring alternate approaches to understanding learning in interaction. However, we would benefit from boundary objects (Star & Griesemer, 1989) that form the basis for dialogue between theoretical and methodological traditions applied to the analysis of learning in and through interaction. The question at hand is what constitutes effective boundary objects and how they may be leveraged.

Motivated by these considerations, the authors of this volume and other colleagues collaborated over a period of 5 years through a series of workshops and online interaction, seeking appropriate boundary objects and strategies for supporting productive multivocality between multiple analytic traditions in CSCL. This collaboration has become known as the “productive multivocality project.” With this book we offer to colleagues in our own and other fields the insights of our activities. This chapter provides an overview of the project and summarizes its lessons. After a brief history of the project, the chapter summarizes dimensions for describing analytic approaches (discussed further in Chap. 2, Lund & Suthers, 2014), the composition of our data corpus, and strategies for productive multivocality (see also Chaps. 32–34: Dyke, Lund, Suthers, & Teplovs, 2014; Lund, Rosé, Suthers, & Baker, 2014; Rosé & Lund, 2014). Readers interested primarily in an executive summary of our insights are encouraged to read the present chapter with Chap. 31 (Suthers, Lund, Rosé, & Teplovs, 2014), which provides a more comprehensive post hoc summary of what we have learned. But the accounts in these summary chapters are given in the abstract: the case studies through which our work was conducted provide concrete examples. The body of this volume consists of five sections, each using a case study to investigate specific barriers to multivocal analyses, strategies to overcome these barriers, and benefits that may accrue from leveraging theoretical and methodological diversity. These case studies also offer other