

## 2 The Project

The project reported in this book was funded by the National Institute of Education and extended over a period of more than three years. It was motivated by our desire to better understand the role that writing plays in academic learning and also to identify particular ways that writing can be used more effectively in high school classrooms. Our work took two forms: we conducted a series of studies of teaching in which we studied a total of twenty-three teachers and their students as they used writing to foster learning in their academic courses, and we conducted a series of studies of learning in which we examined the effects of different kinds of writing tasks on academic learning.

### **Studies of Teaching and Studies of Learning**

We began our studies of teaching with a survey of eighteen science and social studies teachers who were recommended because they had already incorporated writing into their classrooms; we wanted to learn more about the types of writing activities they used in their classrooms and the extent to which these activities aided students' learning about the particular subject at hand. We followed this survey with a series of in-depth studies of particular classrooms in action. In these in-depth studies, we collaborated with highly experienced teachers who wanted to incorporate additional writing into their instruction as a way to support academic learning. We saw these classroom studies as a process of collaboration to which we brought our knowledge of writing tasks and process-oriented writing instruction and to which the teachers brought their knowledge of their specific subject areas, as well as their understanding of the needs and interests of their particular students.

In the course of these studies, we lived as observers in eight secondary school classrooms (science, social studies, English, home economics) several days a week for periods ranging from five months to two years. Each individual classroom became a case study, documenting the effects of introducing new writing tasks specifically to further student understanding of new concepts as part of the regular

curriculum. We examined instructional planning, classroom activities, and curriculum coverage, as well as students' approaches to the new tasks. From each classroom we also selected individual students as case-study informants who reported to us their interpretations of the lessons, the ways in which they approached their work, and their understandings of the teachers' expectations as well as their own goals. Field notes and observation schedules, teacher interviews, student interviews, and writing samples provided the data for our analyses.

To learn more about the ways that writing tasks interact with what students are learning, our studies of learning traced the effects of various kinds of writing tasks on student engagement and learning. These studies used think-aloud self-report techniques in conjunction with more traditional tests of learning and recall to examine how learning new content is influenced by relevant background knowledge and by the type of writing task. In some cases, we studied individual students as they completed their regular classroom assignments. In other cases, we conducted experimental studies in which larger numbers of students engaged in writing and studying tasks that paralleled some of those being developed by the teachers.

Although we initially expected to carry out a series of studies that would address our original questions one by one, we found that the problems we were studying were too complex to permit this. Instead, each new analysis pushed us to ask questions we had not originally intended — and our treatment of the studies presented in this volume is a reflection of that. Rather than a simple report of findings, our discussion here is also a report of an evolving intellectual history.

### *The Teachers*

Twenty-three teachers participated in this project. Of the eighteen involved in the initial survey, we selected two for the first year of classroom studies, one of whom continued to work with us in the second year. Five others joined us for the second year of classroom work. All twenty-three had been teaching for at least eight years; one had thirty-three years of classroom experience. While the initial eighteen had demonstrated their interest in writing through previous participation in Bay Area Writing Project workshops, the other five expressed similar motivations in volunteering to work with us. All wished to develop more effective ways of using writing to foster student learning of course content. The subjects they represented included English, science, social studies, and home economics.

*The Students*

In all, 566 students participated in the project. Of these, 326 participated in experimental studies of writing and learning, twenty were case-study students, and the remainder participated in the collaborating classrooms but not in the other parts of the study. They represented the typical range of student achievement levels generally found in working- and middle-class suburban communities in the San Francisco Bay area.

**First-Year Activities***Studies of Teaching*

Our work with the teachers began with an interview and observational study of the practices of eighteen Bay Area science and social studies teachers recommended to us for their unusual efforts to incorporate writing assignments into their curricula. This preliminary study served two purposes: it provided a baseline of data about the kind of writing taking place in the classrooms of teachers who had already begun to use writing in the content areas (reported in chapter 3), and it helped us identify one science and one social studies teacher to work more intensively with us during the first year.

As part of the project, these teachers developed writing activities that reflected their own curriculum goals and that were designed to support student thinking and learning about the course content. We worked with the teachers as they planned the activities, and we observed each class several times a week to learn how those activities were carried out — how the teachers presented them and how the students approached them. We gathered data from the teachers and students through baseline interviews, planning sessions, classroom observations, interviews with students, photocopying student work, teachers' logs, and end-of-year wrap-up sessions.

These activities were planned as a school-university collaboration in which the various participants contributed their particular expertise to the ongoing work. All of the participants agreed at the outset to explore a variety of ways that writing might be used to support academic learning — developing new activities and examining their effects on ongoing instruction and on student learning. To the collaboration, the teachers brought their knowledge of their particular subject areas, their ideas about how writing might be used in their classes,

and their knowledge of their particular students and classrooms. The university-based project team added suggestions for structuring writing activities, as well as expertise in methods for studying classroom learning.

Activities were developed through collaborative planning sessions that focused on each teacher's goals and objectives in upcoming lessons. Usually, these sessions formulated a general approach to a new activity, which was then elaborated and implemented by the individual teachers in ways that they found comfortable and effective. After each activity had been introduced, discussions focused on understanding what had worked in terms of the teacher's goals, what had not worked, and why.

### *Studies of Learning*

During the first year, we also conducted two studies examining student learning from particular writing tasks. The first was a pilot study, focusing on six students, to develop materials, procedures, and methods for analyzing student approaches to learning through writing. We wished to be able to describe how engaging in different writing tasks affects the organization of information, both in writing and in remembering. Specifically, we examined how the students' knowledge of a textbook passage was affected by the type of writing they engaged in after reading the passage, and the kinds of knowledge students called upon and the strategies they used in the act of making meaning through particular writing tasks. This study is described in chapter 6.

The second study gathered a larger sample of data about the effects that writing has on learning social studies. Because teachers (and instructional materials) often ask students to write in conjunction with their textbook reading, we were particularly interested in the kinds of learning engendered by the different writing activities that can be assigned after readings of textbook passages. We studied the effects that the various writing tasks have both on recall of specific information and on more general understanding (the ability to apply important concepts). Results from this study are reported in chapter 7.

### **Second-Year Activities**

The procedures for data gathering and analysis developed during the first year provided a model for the second year.

### *Studies of Teaching*

During the second year, we broadened our studies of teaching to include more teachers and more subject areas. At the suggestion of the teachers who collaborated with us during the first year, we concentrated in the second year on one school site. One teacher from the first year continued on, together with five of her colleagues who shared a common interest in developing writing activities that might foster learning of their subjects. They taught ninth-grade through twelfth-grade science, social studies, English, and home economics. Data collection followed the plan developed in the first year. Results from these studies of teaching are reported in chapters 3 through 5.

### *Studies of Learning*

We also collected two further sets of data on student learning during the second year. Because we were interested in collecting data more fully rooted in ongoing class activities, one set of data consisted of think-aloud protocols gathered in the case-study classrooms. These protocols provided us with evidence of the kinds of thinking and reasoning the students engaged in when completing their classroom assignments. When the other students were engaged in writing activities in their classrooms, think-aloud informants left the room to tape-record their thoughts while completing the same assignments. Results from these analyses are included in chapter 4.

A second set of data was based on common writing-to-study-and-learn tasks we had observed being used in the participating classrooms. The intent in this study was to obtain objective evidence of the effects on student learning of writing-to-study tasks similar to those used regularly by the participating teachers. Content was introduced through textbook passages, followed by instructions to complete one of several study tasks. Our analyses focused on the interactions among the type of task, the specific content focused on, and later recall of the material. Results for this study are reported in chapter 8.

## **The Third Year and Beyond**

Because of the size of the data set and the broadening focus of our concerns, additional analyses and reconceptualization were necessary when interpreting the results. This digestion, contemplation, and rethinking took place during a third and part of a fourth year. Earlier reports reflecting our developing perceptions have been published

elsewhere (Applebee, 1984, 1986; Langer, 1984a, 1986a; Langer and Applebee, 1986), and are drawn upon here as needed.

The next chapter explains in more detail the methods we adopted in our studies of teaching, including the findings from our initial survey of eighteen teachers and profiles of the seven teachers who were our primary collaborators during the remainder of the project.