



FIGURE 1

Percentage of time students spent in activity led by teacher and by no one.

Children can learn without a teacher. Nevertheless, it seems likely that they could profit from having their teacher as the leader of their activities more than half of the time they are in the classroom. It is the incredibly large amounts of time that American children are left unassisted and the effect that unattended time has on the coherence of the larger lesson that is the problem.

When children must work alone for long periods of time without guidance or reaction from the teacher, they begin to lose focus on the purpose of their activity. Asian teachers not only assign less seatwork than American teachers, they also use seatwork differently. Chinese and Japanese teachers tend to use short, frequent periods of seatwork, alternating between group discussion of problems and time for children to work problems on their own. Seatwork is thereby embedded into the lesson. After they work individually or in small groups on a problem, Asian students are called upon to present and defend the solutions they came up with. Thus, instruction, practice, and evaluation are tightly interwoven into a coherent whole. In contrast, the average length of

seatwork in American fifth-grade classrooms was almost twice as long as it was in Asian classrooms. And, instead of embedding seatwork into the ongoing back and forth of the lesson, American teachers tend to relegate it to one long period at the end of the class, where it becomes little more than a time for repetitive practice. In Chicago, 59 percent of all fifth-grade lessons ended with a period of seatwork, compared with 23 percent in Sendai and 14 percent in Taipei. American teachers often do not discuss the work or its connection to the goal of the lesson, or even evaluate its accuracy. Seatwork was never evaluated or discussed in 48 percent of all American fifth-grade classes we observed, compared to less than 3 percent of Japanese classes and 6 percent of Taiwan classes.

Since Asian students spend so much of their time in whole-group work, we need to say a word about that format. Whole-class instruction in the United States has gotten a somewhat bad reputation. It has become associated with too much teacher talk and too many passive, tuned-out students. But as we will see in more detail as we continue our description of Asian classrooms, whole-class instruction in Japan and China is a very lively, engaging enterprise. Asian teachers do not spend large amounts of time lecturing. They present interesting problems; they pose provocative questions; they probe and guide. The students work hard, generating multiple approaches to a solution, explaining the rationale behind their methods, and making good use of wrong answers.

HANDLING DIVERSITY

The organization of American elementary school classrooms is based on the assumption that whole-group instruction cannot accommodate students' diverse abilities and levels of achievement; thus, large amounts of whole-class time are given up so that the teacher can work individually with students. Asian educators are more comfortable in the belief that all children, with proper effort, can take advantage of a uniform educational experience, and so they are able to focus on providing the same high-quality experience to all students. Our results suggest that American educators need to question their long-held assumption that an individualized learning experience is inherently a higher-quality, more effective experience than is a whole-class learning experience. Although it may be true that an equal amount of time with a teacher may be more effective in a one-on-one situation than in a large-group situation, we must realize that the result of individualized instruction, given realistic financial constraints, is to drastically reduce the amount of teacher instruction every child receives.