

“I spend the time in studying the teaching materials: What is it that I am going to teach in this lesson? How should I introduce the topic? What concepts or skills have the students learned that I want to draw on? Is it a key piece on which other pieces of knowledge will build, or is it built on other knowledge? If it is a key piece of knowledge, how can I teach it so students can grasp it solidly enough to support their later learning? If it is not a key piece, what is the concept or the procedure it is built on? How am I going to pull out that knowledge and make sure my students are aware of it and the relation between the old knowledge and the new topic? What kind of review will my students need? How should I present the topic step-by-step? How will students respond after I raise a certain question? Where should I explain it at length, and where should I leave it to students to learn it by themselves? What are the topics that the students will learn which are built directly or indirectly on this topic? How can my lesson set a basis for their learning of the next topic and for related topics that they will learn in their future? What do I expect the advanced students to learn from the lesson? What do I expect the slow students to learn from the lesson? How can I reach these goals? etc. In a word, one thing is to study whom you are teaching, the other thing is to study the knowledge you are teaching. If you can interweave the two things together nicely, you will succeed. We think about these two things over and over in studying teaching materials. Believe me, it seems to be simple when I talk about it, but when you really do it, it is very complicated, subtle and takes a lot of time. It is easy to be an elementary school teacher, but it is difficult to be a good elementary school teacher.”

Tr. Wang ([pg. 135-36: 1999, Ma. *Knowing and Teaching Elementary Mathematics*)