Excerpt from
*Teaching as the Learning Profession: Handbook of Policy and Practice*
Linda Darling-Hammon & Gary Sykes, Editors

Thinking

“The essential point - the inner intent - that seems so seldom grasped even by teachers eager to embrace the current reforms is that in order to learn the sorts of things envisioned by reformers, students must think. In fact such learning is almost exclusively a product or by-product of thinking. By “think” we mean that students must actively try to solve problems, resolve dissonances between the way they initially understand a phenomenon and new evidence that challenges that understanding, put collections of facts or observations together into patterns, make and test conjectures, and build lines of reasoning about why claims are or are not true. Such thinking is generative. It literally creates understanding in the mind of the thinker. Thinking is to a student’s knowledge as photosynthesis is to a plant’s food. Plants do not get food from the soil. They make it through photosynthesis, using nutrients and water from the soil and energy from sunlight. No photosynthesis, no food. Students do not get knowledge from teachers, or books, or experience with hands-on materials. They make it by thinking, using information and experience. No thinking - no learning - at least, no conceptual learning of the kind reformers envision.” (p. 346)

Our role as educators is to provide them with materials and experiences that permit the students to use their thinking to lead to conclusions about nature that indeed match nature.