

Learning models have always intrigued me. They capture in a remarkably succinct way the key components of an author’s conception of learning. Two models that have caught my attention in recent years include John Hattie’s Visible Learning Model and Guy Claxton’s The River of Learning and Teaching Model.

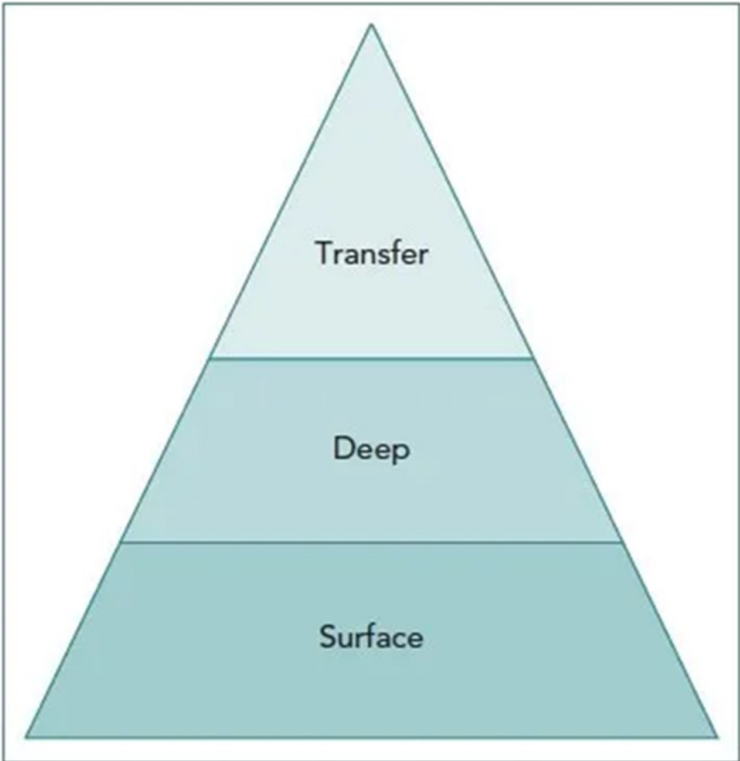
At the right is a description of Hattie’s Visible Learning Levels taken from *Visible Learning for Mathematics*, 2017.

Surface Learning—Surface learning does not mean superficial learning. Rather, surface learning is a time when students initially are exposed to concepts, skills, and strategies. Surface learning is critical because it provides a foundation on which to build as students are asked to think more deeply.

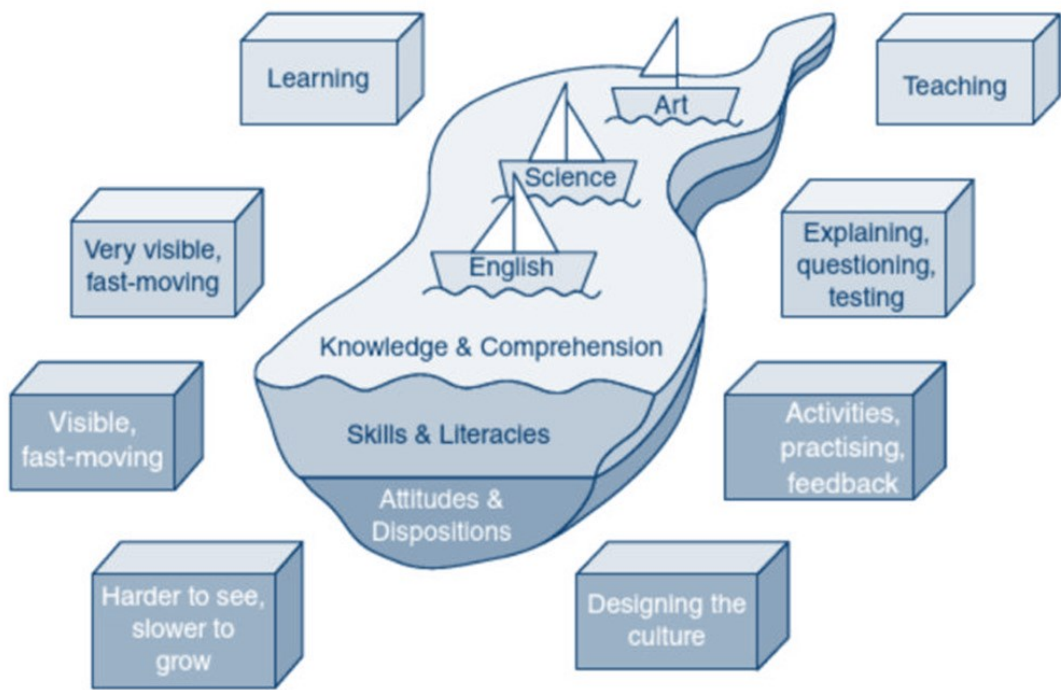
Deep Learning—We define deep learning as a period when students consolidate their understanding and apply and extend some surface learning knowledge to support deeper conceptual understanding . . . We think of this as a ‘sweet spot’ that will often take up more instructional time, but can be accomplished only when students have the requisite knowledge to go deeper.

Transfer Learning—Transfer learning is the point at which students take their consolidated knowledge and skills and apply what they know to new scenarios and different contexts. It is also a time when students are able to think metacognitively, reflecting on their own learning and understanding.

SURFACE, DEEP, AND TRANSFER LEARNING



SOURCE: Fisher, Frey, & Hattie, (2016).



The River of Learning and Teaching

To the left is a description of Claxton’s River of Learning and Teaching Layers taken from *The Future of Teaching and the Myths That Hold it Back*, 2021.

Top Layer—Students are learning how to know and understand things. Knowledge is like the cargo on small boats floating down the river which learners need to grasp and retain. Being on the surface of the river, knowledge and comprehension are quite easy to see, to schedule and also to assess.

Middle Layer—Below the surface of the river lies the development of the various forms of skill, literacy and expertise that enable students to access and manipulate the knowledge they are acquiring. Skills

take time to develop, so things move a little more slowly at layer 2. You can’t just remember skills; you have to practice in order to master them. Things may be a little harder to see and to keep your eye on.

Bottom Layer—At the bottom of the river, there are habits and attitudes being formed—especially habits of learning and attitudes towards learning. These ‘habits of mind’ tend to form more slowly. And they are harder to see.