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Chapter 6 Reading Facts

Inductive Model

Inductive Thinking is paramount in Computer Science. The discipline of Computer Science revolves around seeing patterns and “cooking down” that pattern into a set of reproducible steps. These steps can then be programmed into the computer and thus a program is born. This is exactly why high school computer science class is relevant to students’ learning. It fosters those critical thinking skills that are vital in problem solving.

The Inductive Teaching Model is a great way to introduce students to new ideas. I’ve always been a proponent of teaching students by reviewing what they already know, then introducing them to the new concept in terms that relate the new with the old. The Inductive Model uses the students’ input on related topics to really develop the educational landscape the teacher has to work with.

The idea of a study print is great. I enjoy having content-related materials hung around the room for students to explore and to excite them. A good study print stimulates the brain and encourages the students to think in the direction of the lesson. After stimulating the students, allowing the class to brainstorm responses really helps with class participation. Most students will be glad to see their idea listed on the board and this will encourage future interaction.

When grouping and providing rationales, the teacher must be quick on his/her toes to be able to keep the lesson on track. I think it is also good for the teacher to suggest a few entries to the list to help elicit responses from students when they are in need. “Naming the Lists” is also a good time for the class to work as a single unit to come to a good consensus for naming the groups.

I recently used a very similar approach to introducing the concept of Object Oriented Programming to both of my programming classes. Perhaps I will use this for my lesson plan on Friday.