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Rethinking Classroom Strategies for Teaching Computer Science



Ditch the Uniformity

Students learn at different rates. They also come into technology with vastly different skills. Trying to keep everyone on the same page will alienate both the bottom third and top third of learners. Take the pressure off of everyone by having a list of "approved" activities to focus on when they've finished their class exercise.

Frequent Breaks

Teachers are used to helping their class get very focused and encouraging students to work quietly until an activity is done. In computer science, students often benefit from small and frequent breaks, even if it's just switching to a new activity for a few minutes. Try having a student write a sentence or two about what they're trying to do, or keep a notebook, like a biologist or chemist might.

Collaborate

It's really hard for a programmer to "cheat". Collaboration is a requirement out in the real world. This means helping one another solve problems, researching issues on the Internet, and looking at what others have done in similar situations. The only bad method is claiming another's work as your own.

Don't be a Know-It-All

We often think that being a teacher means being an expert. In computer science, it's really much more important to be a cheerleader. Let the students know that it's possible for them to quickly become better at this than you are. Foster determination. Encourage students to monitor themselves, and find answers for one another. Let them figure things out for themselves, then let them teach you.

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