Live-Coding in Introductory Computer Science Education

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Abstract: Live-coding, an active learning technique in which students create code solutions during class through group discussion, is an under-used method in computer science education. However, this technique may produce greater learning gains than traditional lectures while requiring less time and effort from the instructor. We begin with a discussion of active learning techniques in STEM disciplines and then present a study to evaluate this instructional method in introductory Computer Science courses. While our results were inconclusive, we discuss several interesting and positive trends related to our live-coding results that deserve further investigation.