When learning programming students need to learn a lot of different concepts and constructs which normally goes quite easily with a lot of training and repetition. As a teacher I have experienced that students despite knowing the concepts struggle with integrating them into larger programs.

In Web-applications for mobile devices given to first-year web programming students I introduced a new concept of Cozy-Coding to show how experienced programmers solve problems and integrate known concepts into larger applications. Each week in the course the students work with an assignment revolving around several weekly concepts and programming constructs. Before the course was given, I had decided on writing an application that solve similar problems as the application that the students hand-in. Each week I would do the Cozy-Coding session unprepared to show the students how I tackle and solve problems related to the theme of the week.

As a teacher it can be a frightening experience to do lectures or workshops unprepared. But it shows the students that having good problem-solving skills is better than knowing all the concepts and constructs by heart. In the course evaluation I saw several positive comments on the Cozy-Coding sessions and how it had helped the students understand the concepts better and especially how the different constructs can be used in larger settings.