

# Pedagogical Patterns For Learning Programming By Mistakes

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## **Abstract**

From the educational point of view, learning by mistake could be influential teaching method in several educational areas. Particularly, it is very powerful in teaching programming as one of the major part of Computer Science education. Learning to programming computer is very, very hard, but teaching how to make the computers program is extremely demanding job. The Academic community has been trying to assist educational community to override that task in various ways. One approach is the model of Pedagogical Patterns for Computer Science Education. Joseph Bergin in “Active Learning and Feedback Patterns (2005)” pointed that Pedagogical Patterns, like all patterns, attempt to capture the best expert practice. In the case of teaching, it is the practice of experienced teachers, both in academia and in industrial setting. For many professional educators, some these patterns may at first sight seem trivial. But, all educators both experienced and novice could benefit from the ideas contained in patterns. For those newer to teaching, pedagogical patterns offer a way to receive the wisdom passed on by experienced teachers.

Modern approach in teaching programming by active learning, believe that the one of good way to teach students is to have them repeatedly practice some tasks. Learning by mistakes is very fine teaching method generally speaking. In teaching programming it is used very often. It's important to avoid mistakes while learning so that our mistakes get accidentally reinforced. That approach assumes that the best way to teach children is to have them repeatedly practice (test for example) as far as it takes. Once they know, learn or guess or rich somehow, the right answer, that correct response gets embedded into the brain.

In this paper the briefly description of design special class of Pedagogical Patterns for teaching elementary programming, the group of patterns for learning by mistakes, is presented.

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