Abstract

Direct instruction is absolutely beneficial to the learning of ALICE and for the appreciation of programming at the middle school age. This technique helps set the tone for the class, and students immediately differentiate this class from “play with computer”. Given that the content of the instruction must be engaging and the duration of the lecture must not exceed fifteen minutes, students were often more motivated and ready than when direct instruction was not given.

The use of analogy while teaching a programming technique in ALICE proved tremendously helpful. For example, I compared the use of a “dummy camera” in an Alice World to placing a bookmark when reading a ten-thousand-page novel. Locating the page is quite difficult and time consuming without a bookmark. Similarly, ALICE Worlds are infinite so is impossible locating the original location without a “dummy camera”. Using this example, students seemed to better understand why they were always “lost” and now know how to get where they desired.

Another analogy was made when introducing writing methods. A novel that does not break into chapters may seem ridiculous, but so would a program with all the codes within one method. Therefore, students understand that rather than coding everything in “world.my first method”, the “world.my first method” should only be used as a “table of content” where methods are called, and that the actual methods should be separately coded elsewhere, in “chapters”.