Game Based Learning on Android for Software Engineering

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BSc in Computer Science

Exploring the use of Game Based Learning

This project looks at game based learning and more specifically how to design a game to teach software engineering. The study will detail past attempts at introducing video games into a learning environment, and how effective the implementations were. Also explored was the optimal method for teaching. The problem is how to make use of game-based learning to teach the subject of software engineering. The solution is a video game based on the Android operating system. The game is designed to teach the basics and fundamentals of Software Engineering and is aimed at people of all age groups. It will also be used to test what kind of exercises are most effective when aiding memory.

Figure 1. Example of software engineering related clue

The image above shows one of the clues as part of the game's decoration. It is subtle as it is not intrusive to the gameplay. It only affects the background.
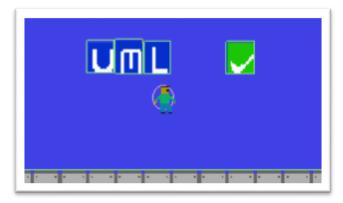

Figure 2. Example of the puzzle that corresponds to the information in Figure 1

This image shows the puzzle that requires the user to remember the information showed in figure 1. The boxes change letters when hit and the player has to make them show UML to solve the puzzle and continue.