

Children's game development with MissionMaker game engine

This study determines what kind of games Hyhky's primary school fifth-graders made in their game project and sheds light on what kind of game development enabler MissionMaker game engine is. The goal is to create a base material for possible further educational research projects, so that educational game projects in the future would be even more meaningful.

The work consists of theoretical part and a data part. The theoretical part deals with the theory of games, in order to obtain the basic concepts for analyzing games made by the children. In the data section games are analyzed and different occurred game-like features are listed. Based on occurred features one also tries to find differences between games developed by girl and boy teams.

The results indicate that even with relatively short available time the children have been able to get quite a lot out of MissionMaker. The MissionMaker allows building of very wide range of rules and challenges, which in turn provides a lot of opportunities for educational game development projects to utilize. The MissionMaker enables to direct children's game development rather by means of educational purposes, than by means of technological limits.

Game engine's main deficiencies are associated with its fixed sets of game environments and characters. The study reveals that lack of these features may be a limitive factor when trying to make game projects interesting. The game engine also makes it easy to create straightforward first person shooting games, which might cause developer groups to "go through from where the fence is the lowest". The main differences between girl and boy teams can be found from game genres and violence of the games, though amount of development groups were too small to show any clear differences between sexes.