

SEMATIC: a serious game to learn the reading code in children with Low-functioning autism

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This paper presents SEMATIC, a serious game for children with Low-functioning autism (LFA) and without functional verbal skills. SEMATIC is based on an edutainment game to learn the reading code with 10 levels increasing in difficulties and corresponding at different abilities for the acquisition of reading skills. One hundred words are presented in the game (90 nouns and 10 verbs). The aim of this game is to improve verbal communication through lexical development and by learning the reading code: decoding words, learning the sense of reading words and sentences, discrimination of words and non-words in children with LFA. The game can be used by children with LFA and without functional verbal skills (or with echolalia) who had an interest in computer support. SEMATIC is adapted to the specific needs of children with LFA because it is based on logical and visual thinking. Furthermore, this serious game is based on non-verbal learning which is typical for the cognitive functioning of individuals with autism. A pilot study will start in October 2013 to evaluate the learning impact of the reading code in children with LFA.