Abstract

The great advance in information technology during the last two decades contributes significantly in solving special needed people problems. This paper describes the second phase of an ongoing project to help those children suffering from speech disorder problems. The current application is a multi-levels interactive game using speech recognition technology; kid can interact with an interactive animated picture using his/her voice. There are three levels for improving the speaking skills of children at different stages. Firstly, by encouraging child just to produce sounds then by improving his/her pronunciation skills by pronouncing short vocal (one syllable words) Arabic words and finally improving his/her skill by pronouncing long vocal (for example two syllable words). This application solves speech disorder problems such as difficulty producing speech, dysfluency, shuttering and voice disorders. The current work is pioneer in developing an Arabic language application and targeted to children aged from two years to seven years.


**Index Terms**

Computer Science Information Sciences
Keywords

Children speech disorder, speech recognition, interactive applications.