

## **Interactive Instructional Multimedia in Vocabulary Development of Children with Hearing Loss**

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### **Abstract**

This article describes our experiences with interactive instructional multimedia being used in daily speech therapy with children with hearing loss. This study examines the effectiveness of technology, especially the use of interactive multimedia in learning unknown words. It is evaluated the efficacy of multimedia in learning pronunciation and vocabulary. The promise of multimedia learning is that deaf students can learn more deeply from well-designed multimedia programmes. It is defined characteristics of interactive multimedia, its advantages and some restrictions in education. We questioned whether instructional multimedia has a potential to support improving vocabulary, how and to what extent. Participants are 8 children, 4 with severe hearing loss and 4 with profound deaf, 12-13 years old, from Sofia Special School for Deaf Children "Prof. Decho Denev". For the aim of this study we designed interactive multimedia applications by means of PowerPoint which present new words with corresponding to the imaged items, showing how the word is spelt, how it is pronounced and what it means. The information is presented both visually and interactively. The student's knowledge was tested before and after the training. Each child was thought with multimedia materials individually in 14 sessions lasting 30 minutes each. The results revealed that the children's performance improved significantly. The data analysis shown that within the two groups (the one with severe hearing and the one with profound hearing loss) the acquisition of words' meaning was most effective, followed by the acquisition of skills for spoken word recognition. The less impact learning with multimedia had on the word pronunciation. The findings also suggest that training with interactive multimedia is more efficient for children with severe hearing loss. We conclude that learning with the help of good designed interactive multimedia applications has a potential to increase the effectiveness of knowledge acquisition among the children with hearing loss.