

# TEACHER'S VOICE, CHILDREN'S HEARING AND UNDERSTANDING AND ACOUSTIC ENVIRONMENT IN CLASSROOMS

## THE PRIMARY TEACHING TOOL OF A TEACHER - VOICE



AN AVERAGE **60%** OF TEACHING TIME IS SPENT **SPEAKING**



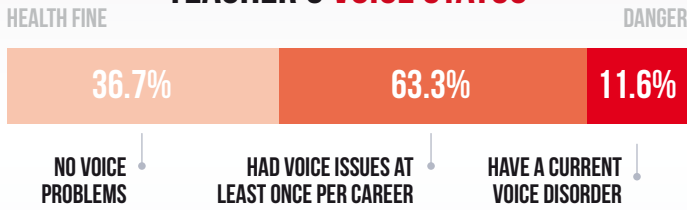
TEACHERS REPORT **32X MORE VOICE PROBLEMS** THAN THE GENERAL POPULATION



**WOMEN TEACHERS ARE AT HIGHER RISK FOR VOCAL DISORDERS**

**35%** OF TEACHERS HAVE STAYED HOME DUE TO VOICE PROBLEMS

### TEACHER'S VOICE STATUS

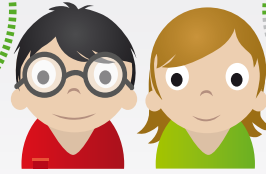


## IMPORTANCE OF HEARING AND UNDERSTANDING FOR CHILDREN

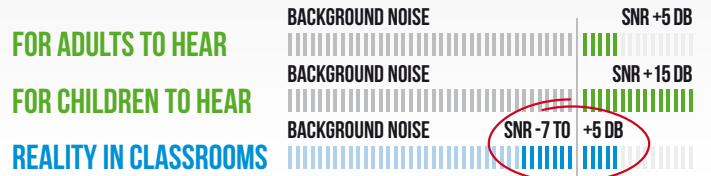


CHILDREN SPEND **75%** OF CLASSROOM TIME **LISTENING**

DEPENDING ON ACOUSTIC ENVIRONMENT STUDENT'S RECOGNITION OF SPEECH VARIES



### TO RECOGNIZE SPEECH



THIS IS NOT ENOUGH FOR CHILDREN TO UNDERSTAND WHAT IS BEING SAID

#### SNR DEFINITION

SIGNAL-TO-NOISE RATIO IS RELATIONSHIP BETWEEN SPOKEN SIGNALS AND BACKGROUND NOISE.

## CLASSROOM ENVIRONMENT

### BACKGROUND NOISE



### TEACHER'S VOICE LOUDNESS



*PentaClass*  
hear. understand.



## CERTES PENTACCLASS HAS A SOLUTION

### SOLUTION

### SPEECH RECOGNITION IMPROVES WITH PENTACCLASS



### TEACHER'S VOICE LOUDNESS



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#### SOURCES

- <http://shss.pubsasha.org/article.aspx?articleid=1780159>
- <http://up.lub.lu.se/luur/download?func=downloadFile&recordId=1858050&fileId=1858145>
- <http://dris.dadeschools.net/info/Capsules/IC0607.pdf>
- [http://news.bbc.co.uk/2/hi/uk\\_news/education/487721.stm](http://news.bbc.co.uk/2/hi/uk_news/education/487721.stm)
- <http://www.tes.co.uk/article.aspx?storycode=2440995>
- <http://www.ncbi.nlm.nih.gov/pubmed/9988034>
- <http://www.snj.org.sa/pdf/files/mar07/19/voice20060115.pdf>



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