



## Results of the sound pressure level and heart rate measurements

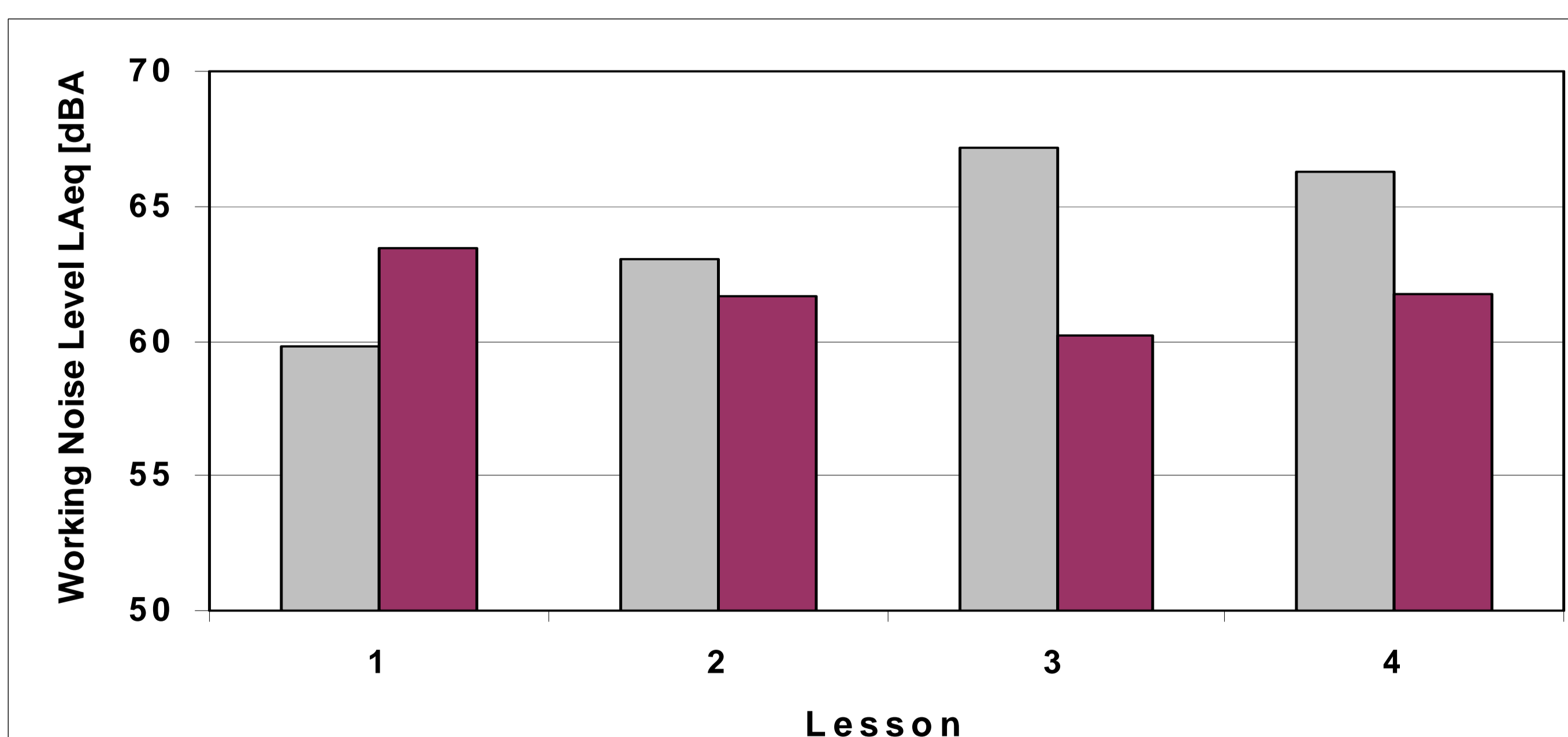
### Sound pressure level

The implementation of ventilation breaks brings with it a noticeable reduction in the sound pressure level. With the 2 minute breaks and the improvement of the air quality, thus improving the working environment, there is a change in the social conditions and therefore in the behaviour of the students. The environmental sound pressure level is reduced by regular ventilation breaks. The improvement in air quality as with the 2 minute breaks resulted in a reduction in the sound pressure level, as determined by a simple study. The short break proved to be more effective than the reduction of the CO<sub>2</sub> level during tuition.

Obviously improved air quality results in better working conditions and higher concentration capacity of both the teachers and students during tuition. Also the regular breaks had a positive effect on the teaching environment.



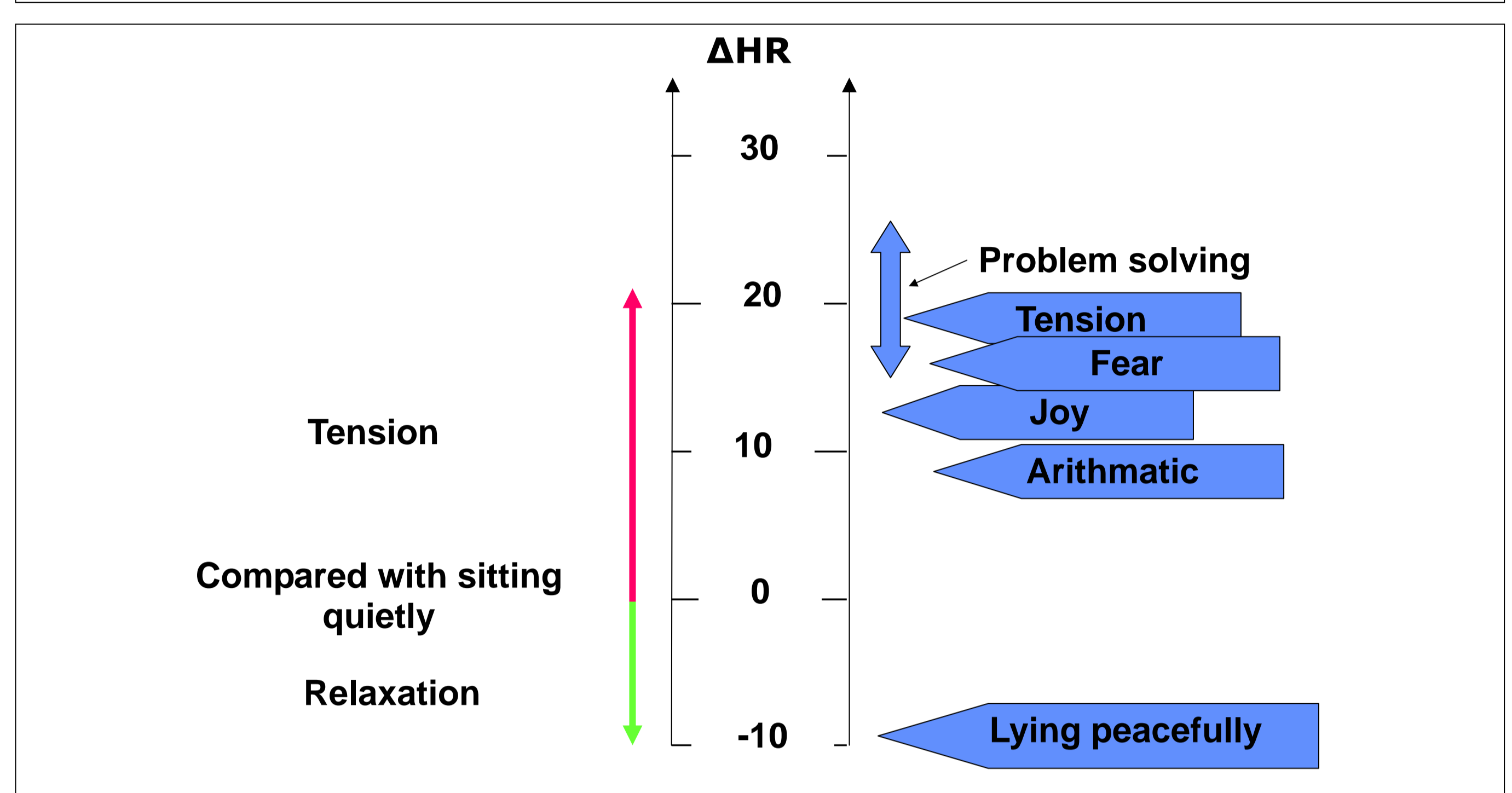
It is not only that the sound pressure level in the teaching environment is reduced, but also the development of the noise level is changed over the course of the day. As the class gets louder before the ventilation interval, the sound levels remain relatively constant with the introduction of regular breaks!



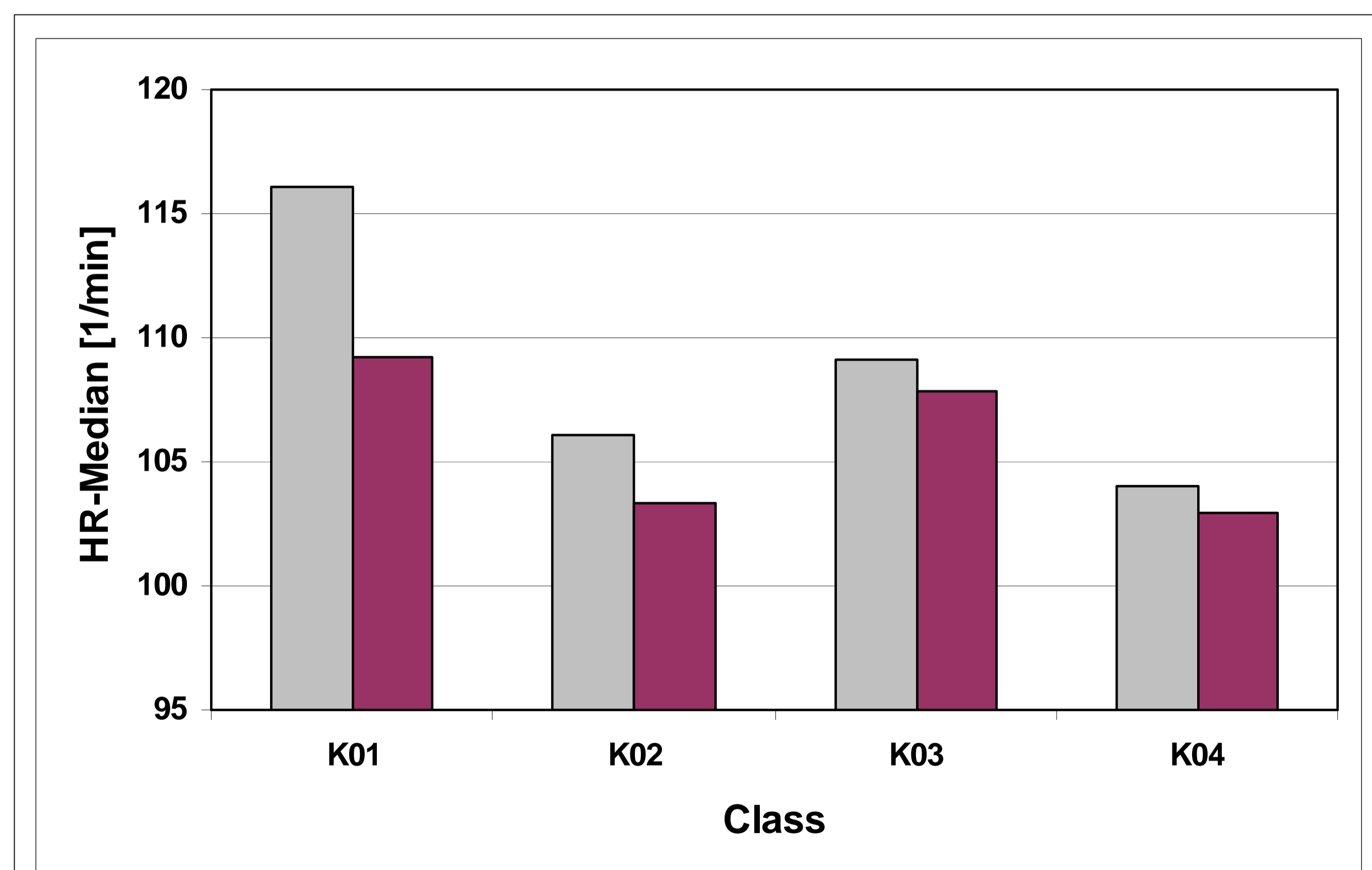
Average sound pressure level during the school day without (■) and with (■) ventilation interval

### Heart rate

The rise and fall of the heart rate (HR) in connection with individual capacity acts as an indicator for the fatigue level and mobilisation of the individuals.



The ventilation breaks led to greatly reduced stress levels felt during the course of the day.



HR– average for a student in a school, sorted by class both without (■) and with (■) ventilation interval.

To summarise, two thirds of the participating classes demonstrated a reduced heart rate after the implementation of ventilation intervals; the remaining third remained unchanged. With the same stress levels during the course of the day and during tuition we are led to the following conclusion: the implementation of short ventilation breaks leads to recuperation and reduced fatigue.

