

Noise

Introduction

At events with mixed audiences, for instance in Church services and conferences, every now and then discussions come up about music and concert-performances. There are musical instruments and stiles that are more criticised, and this without even mentioning the Vuvuzela. Some are bothered by the sounds of playing children, while others enjoy it. Some neighbours feel annoyed about Sunday morning services in general. Obviously **personal preferences and moods as well as conditions** decide if sounds are recognised as noise. Sounds that are due to their volume and structure damaging to the health or disturbing as well as straining for men and environment need to be avoided.

1 legal foundations

According to the Noise- and vibrations-occupational safety prescription (LärmVibrations ArbSchV from 6th of March 2007) noise is described in following terms: §2 (1) "Every sound and vibration that leads to an impairment of the hearing or to any other direct or indirect exposure to safety- and health-dangers of the employees."

- According to the law **playing children** therefore do **not** come **under the category noise**.-

2 noise at work

Noise is usually made up by different components. It need to be investigated what sounds can be **avoided, by-passed or damped** down with how much effort. Machines and apparatuses need to be investigated right at purchase. Laptops should not have a noise emission more than 40 dB(A). Apparatuses with higher noise-emissions need to be set in good distances or should be encased. Work with a high level of concentrating must be done in low noise areas and rooms. Road-noise can be damped and reduced through noise-protection windows. For high **concentration work 55 dB(A) must not be exceeded**. Two apparatuses with 50 dB(A) each (e.g. air-conditioner, Fan and printer, copier) add up to 53 dB(A). If a permanent **middle noise level with 80 dB(A) for 8 hours** is given an **ear protection** must be offered. From 85 dB(A) onwards wearing a ear protection must be demanded. It is not allowed to exceed the maximum value of 137 dB(A) at work.

3 Sounds at congregations

Projectors in hall and prayer-rooms should by all means remain **<50 dB(A)**. Sound-systems with a higher sound procession must be set up in sufficient distance separately. For all **Brass instruments sound absorbers** can be used. Acoustic drums can be encased, or each tom damped individually. For smaller congregations an adjustable **electric drum kid** is recommendable. **Amplly dimensioned sound-systems** do have the advantage of granting a good sound even at low volume, while a too small a sound-system is usually distorting the sound at highest level. Here damaging sounds are especially frequent. **Everyone who prefers it more silent** while still good hearing should **invest into a good technical equipment**.

4 dialogue invitation

The legal maximum values are usually not reached and therefore can not be a solution for controversies. Mutual consents can only be achieved by accounting for both, the need for understanding speech as well as **different sensibilities and preferences**. The modulation of music is an art, being learned by young engineers who do make a number of mistakes. **For pre-damaged and noise-sensitive people earplugs need to be provided**. In cases of different opinions: **"mutual careful listening and don't rush to get load!"**

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