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RESEARCH OF THE NOISE POLLUTION INFLUENCE ON STUDENTS  
INTELLECTUAL EFFICIENCY

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**Introduction.** The learning process in the classroom is accompanied by the noise pollution associated with the gathering of about 120 people. A major problem is the need for students to get involved in the learning process from the very beginning till the end of the lecture, but the excessive noise level does not make it possible to reach the required level of concentration.

**Aim.** To describe and measure the noise level during classes in lecture halls. To evaluate its impact on the students.

**Materials and methods.** Noise research was conducted with the help of the mobile application "Sound Analyzer", its impact assessment was carried out with the help of the specially designed questionnaire. 28 students of KhNMU were questioned. The noise level was checked in accordance with Ukrainian state standards and norms (SSN) 3.3.6.037-99.

**Results.** According to SSN 3.3.6.037-99 temporal characteristic of the noise in the lecture hall is unstable; street or mixed type of noise. The noise level was measured in dB. The indicators ranged from 18.1dB to 83.2dB. Most of the time the noise level was within 30 to 60 dB. The noise level at the beginning of the lecture and before and after the break reached the highest values for 4-6 minutes, namely a minimum of 61 dB, to a maximum of 83.2 dB, an average value was 75.8 dB. In the middle between breaks, the minimum noise level was 36.6 dB, the maximum was 66.7 dB, and the average level was 49.4 dB. At the same time, a survey of 28 third-year students was conducted with the help of questionnaire, which included questions about the level of attention and the state of the organism.

The results obtained are distributed as follows: 72.3% feel noise at the level of attention during the class. The level of their concentration was rated as follows: 22% said “completely unconcentrated”, 20% said “I can partially perceive the material”, 24.7% said “I cannot remember but I can listen”, 33.3% said they had no problems with perception of information. Researching the condition of the organism, it was determined that 63.3% had a headache during the lecture at least once a week; others felt it less frequently or never. 43.3% of students sometimes suffer from the tinnitus during lectures. According to the rules of SSN 3.3.6.037-99, for teaching and learning the norm is 50 dB, the noise level during lectures is exceeded by 33.6%, but on average is within the normative value.

Conclusion. We have described the noise in the lectures as unstable, street or mixed type. It was found out that during the course of the audit work, the noise level often exceeds the norm for the SSN 3.3.6.037-99 by 33.6%. Assessed the impact of noise on the intellectual performance of students during studying in lecture halls.