

ABSTRACT

Title: Ventilation values of elementary and middle school students during their physical education classes.

Dissertation goal: To find out volume of ventilation values of elementary and middle school students during their physical education classes.

To accomplish this goal we divided the work into three fazes:

- laboratory endurance test of primary school students
- measuring heart rate with sport-testers Polar Vantage NV during physical education classes
- calculating the amount of ventilation during PE classes using heart rate results and laboratory endurance test results

Process used in the project: To find out the amount of ventilations in primary school students during their physical education classes we used, laboratory endurance test and heart rate measuring test. We used regression line to obtain ventilation values during PE classes.

Results: The results are concrete values of ventilation of thirty six students from two primary schools during their physical education classes. Average value of ventilation in the group ZŠ Petřiny 7.class is 1105 liters per PE-lesson, in the group ZŠ Petřiny 5. class is 1075 liters per PE-lesson, in the group ZŠ Mikulandská 7. class is 1596 liters per PE-lesson and in the group ZŠ Mikulandská 5.class is 1285 liters per PE-lesson.

Key words:

Ventilation, heart rate, laboratory endurance test, regression method