The Effects of Exercise on Heart Rate and Blood Pressure Were Tested by Second Graders

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Objective

- To perform a physiology experiment with second graders testing the effect of exercise on heart rate and blood pressure.

Methods

- The physiologist described the job of a physiologist
- Background information on the cardiovascular system was presented.
- Students set out to prove their hypothesis; exercise increases heart rate and blood pressure.
- The teachers paired the students.
- Resting levels of heart rate and blood pressure were measured with monitors.
- Snack time.
- On the playground one member of each pair ran laps for five minutes while the other cheered them on.
- When exercise was completed heart rate and blood pressure were measured.
- The exercise was repeated with the other member of the pair.
- Results were recorded and discussed with the class.

Results

- For the majority of students heart rate and blood pressure increased with exercise.
- Student pace during exercise varied greatly with some walking after only 30 seconds.
- Students had a difficult time putting on the monitor and securing it tightly.
- Several had to attempt to take readings more than once which led to a lower reading.

Snack time is very important in second grade.

Students run for five minutes on the school playground.

Students had a PhUn time and especially loved their bags and hearts.

Conclusions

- Students proved their hypothesis and learned about the benefits of exercise
- Limit exercise to three laps around playground
- Run with the students so they exercise at one pace
- Do not forget to schedule in snack time in the middle of session
- Have PhUn week earlier in the year so winter coats are not interfering with heart rate blood pressure monitors

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