



Geography sampling

Group 1


Background of our research

To find out if the major source of air pollutant in our school come from Tseung Kwan O tunnel Road or not.

Sampling at the rooftop of our school

∴ shortest length to the Tseung Kwan O Tunnel Road mouth

due to the car park will makes the extreme data occur more easier while the teacher drive their cars next to us



Hypothesis

- The major source of air pollutants in our school come from Tseung Kuan O Tunnel Road

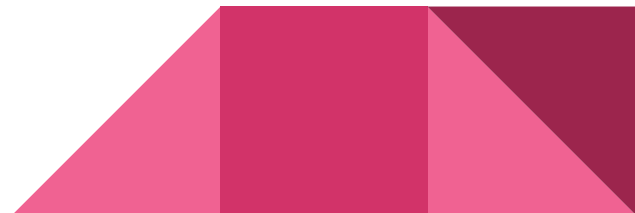


Sampling details

Venue: Roof-top of Laws Foundation College

Date: 17/9, 24/9, 8/10, 15/10, 22/10 (after 7th lessons: ~17:00)

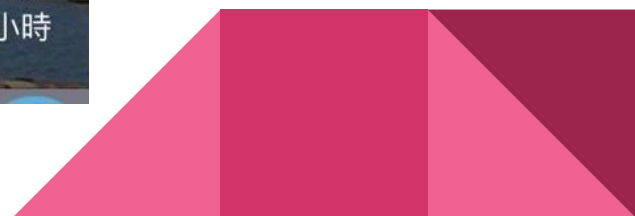
Duration: 10mins per data (CO, NO₂, SO₂, O₃, PM_{2.5}, PM₁₀)



Machine



Portable Outdoor Air Quality Monitors

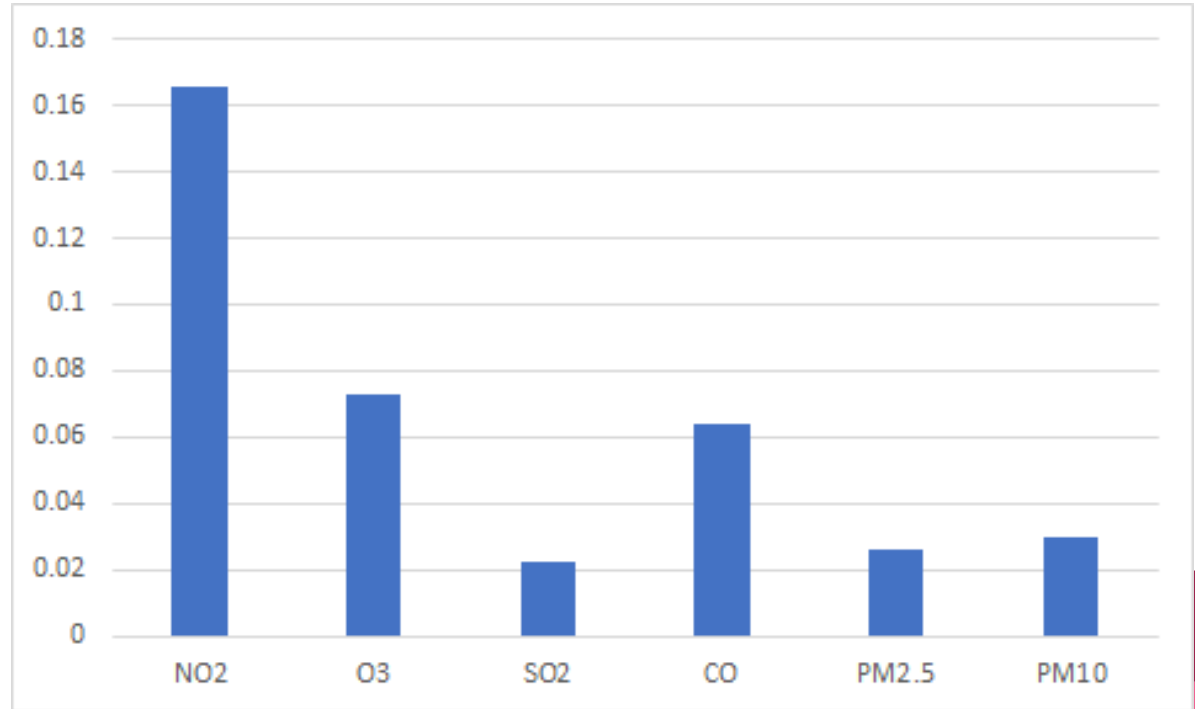


Data

Date	Time	Venue	NO2	O3	SO2	CO	PM2.5	PM10
17-Sep-2019	5:15pm	Roof-top	0.105	0.052	0.09	0.32	0.022	0.025
24-Sep-2019	5:12pm	Roof-top	0.045	0.101	0.00	0.00	0.022	0.029
8-Oct-2019	5:00pm	Roof-top	0.154	0.053	0.01	0.00	0.039	0.038
15-Oct-2019	5:12pm	Roof-top	0.247	0.059	0.01	0.00	0.015	0.022
22-Oct-2019	5:05pm	Roof-top	0.278	0.098	0.00	0.00	0.034	0.036

Average data

NO2	0.1758
O3	0.0664
SO2	0.022
CO	0.064
PM2.5	0.0264
PM10	0.03



Data analysis

Received ↑ amount of SO₂, CO, PM_{2.5}, PM₁₀

→ given out by car



Explain

Wind direction is from the TKO terminal road to our school

Some substance was trapped at our school(some days are much higher)



Conclusion

The main source of the air pollutants is from Tseung Kwan O tunnel Road

Because the wind direction is mostly from the south east which is the direction of the Tseung Kwan O Tunnel Road .

