Review of: "Evaluation of Ambient Air Quality Levels at Various Locations within Lead City University, Ibadan"

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Here are some suggestions for improving the report:

Abstract:

- This should present a very brief summary of the entire paper. In addition, it should be written in a single paragraph. I suggest revising it completely in order to mention more clearly the objectives and main conclusions of the work.

Introduction:

- It is a bit disorganized. For example, it mentions PM in several different paragraphs. It also mentions risks to people's health in several paragraphs. I suggest reorganizing the content of the section to improve its comprehension and clarity.
- It is not clear which pollutants will be measured, as several are mentioned (e.g., Pb), but then they are not mentioned in the objectives. I suggest leaving the characteristics only of the contaminants that will be measured during the study to improve the clarity of the objectives.

Materials and methods:

- I suggest adding the geographic location of the institution where the measurements were made (i.e., lat-long), as well as the size of the institution (in square meters). Perhaps a figure can be added showing the location of the building, as well as the location of the selected sampling points, as this is very important to be able to evaluate the results.
- I suggest also adding the sampling period, i.e., the dates on which the measurements were taken. This point is important in case there was any meteorological event during that period.
- If measurements were made on meteorological parameters, I suggest characterizing the study area from that point of view, so that a deeper analysis of the results can be made later, thus being able to compare the average values with the results found.
- There is repeated information on the characteristics of the pollutants in the Introduction and Methodology. I suggest mentioning this information only in the Introduction, since for the Methodology it is only necessary to know what and how the compounds were measured.
- Regarding the equipment used to perform the measurements, I suggest specifying better the brand and model of the equipment, as well as the calibration methodology used (or if it was already performed for another published paper, reference it). This will improve the transparency of the data collection, and it is important because it is not the same to use an optical sensor, for example, than a chemical sensor.
- Regarding the times at which the samples were collected, I suggest specifying what morning, afternoon, and evening mean, placing the time ranges for each period.

- Regarding the materials required for the measurements, it is enough to specify the characteristics of the equipment. I suggest shortening this section, eliminating the steps that must be done to initialize and use each device. There are things that are internal to the working group and do not need to be explained in a publication.

- Regarding the statistical analyses, were they parametric or non-parametric? Which ones were performed? The paper mentions several and explicitly says: "Perform t-tests, analysis of variance (ANOVA), or non-parametric tests to determine if there are significant differences in air quality parameters among different sampling locations or time periods". I suggest only mentioning those that were performed, in order to later verify consistency with objectives and conclusions.

- In regard to ethical considerations, I understand that the facility is aware of and agrees with the project. However, I do not understand why informed consent would be required from individuals. What parameters were measured in those individuals? How were they involved in the project? Why were they involved?

I suggest mentioning the limitations of the study in the conclusions.

Results:

- I suggest writing up the main results shown in the plots and graphs. Looking at each table is tedious given the amount presented and the format, so mentioning main comparisons between them (e.g., which point turned out to have higher concentrations of each pollutant as well as meteorological parameters) would greatly improve the understanding of the work.

- I suggest adding a discussion of the results, comparing what was found in this work with other work that has been done that is similar in some way to this one (e.g., universities in other parts of the world, or other points sampled in the same city). This would help to better understand whether the results are compatible with previous results, as well as the possible origins of the contaminants, among other things.

Summary of Findings and Conclusion:

- I suggest moving the information concerning Results to the appropriate section. In this section, I suggest highlighting only more general results, without numerical data. In my experience, this section should be readable without having read any other section of the paper, so it should only mention general things and the main conclusions, as well as the limitations of the paper, in order to assess its usefulness to the reader.

In general, I think that the objectives are not completely resolved in the conclusions. I suggest improving this aspect to improve the overall coherence of the draft.