Review of: "Acoustic Over-Exposure in the Institutional Land Use of Calabar Metropolitan Area, Cross River State, Nigeria"

Masilya Mulungula Pascal

Potential competing interests: No potential competing interests to declare.

The theme of this study is interesting, as it focuses on the search for causes that can negatively influence the concentration of learners and trainers in a university environment, namely noise pollution. This is the great merit of this study, given that very few studies are devoted to the analysis of noise pollution in an urban environment, and more specifically, in a university setting.

Beyond this merit, this work deserves to be significantly improved in order to consider its probable publication in a scientific journal.

1°) The form leaves much to be desired: graphs are not announced in the text, titles of graphs are inserted in the graphs themselves, and graphs without captions make them difficult to interpret, among other issues such as assertions without bibliographical references and results presented in a non-logical order.

2°) On the substantive side, there's also a lot of room for improvement:

- The recommendations are not based on the results of the study.

- The methodology is very incomplete: the results are presented, but nowhere do we see the methodology used to obtain them. This is the case, for example, with the occurrences of the various noise sources identified. How were these occurrences recorded? As for the recommendations made: to formulate them on the basis of this study, it was necessary to organize a survey of the users of these different sources of noise to find out why they were present at these locations only, and then to formulate recommendations that took this into account.

- The results: at no point do we see the results of a comparison of the noise intensity produced by the different sources in these two study environments, even though this is one of the main objectives of this study.

- The Discussion section is not a discussion. It needs to be completely redone. It does not refer to any other study dealing with noise assessment in teaching or research environments elsewhere and does not show whether or not in these two study sites the intensity of noise produced is high compared with elsewhere, although higher than the WHO standard. Look for possible explanatory reasons why the intensity of the noise produced in these two study sites is higher or lower than elsewhere, etc.

- Other comments and observations :

*Page 3, first line (« Noise has also been found to negatively affect other performance-related aspects such as attention, concentration, and memory. Irrelevant speech has been shown to have a profound detrimental effect on students' literacy tasks ») : Reference should be made to other studies that have demonstrated the harmful effects of noise and their effect on students' literacy tasks.

* Page 3, penultimate line before aim and objectives of the study (« Our knowledge of noise levels in Nigerian universities hitherto is unknown. It is worrisome when the level of noise in an acclaimed educational facility is not known ») : This doesn't seem to be true when we look at your list of bibliographical references. Apparently, Ntui, A. I. (2009) "Noise sources and levels at the University of Calabar Library, Calabar, Nigeria" has already worked on this topic and at one of the two sites under study in this work.

* Results : The presentation of results needs to be redone: Start by presenting the different noise sources in the study sites, then present the intensity of the noise produced by each of these sources in the different study sites.

* Results (page 5) : A result cannot begin directly with a figure. It needs an introductory text.

* Page 5 , Figure 2 : A very poor figure: no axis legend makes it difficult to understand the meaning of this figure.

* Page 5, Title of figure 2 (« Comparative Assessment of Noise Levels within the University of Calabar and University of Cross River State. ») : I don't think this figure shows a comparison, but rather an evolution or variation in noise intensity at the different sites and the standard value.

* Page 6, Figure 3 : Remove this title from the chart.

* Page 6, Title of Figure 3 (« Mediums of Noise Generation within the University of Calabar ») : I prefer the term "noise source" rather than "medium of noise generation".

* Page 6, Figure 3 : Figure not announced in the front text. It must be announced.

* Page 6, Legend of Figure 3 (« other activities ») : Be precise. You need to show these other activities individually in the figure, and not mix them up in this way.

* Page 6, figure 3 explanatory text (« This presentation shows that electricity generating sets operated by business centres within the school premises and vehicular traffic within and out of the school premises are the mediums with the highest level of occurrences, while other activities are relatively at a medium scale ») : This is incomprehensible and doesn't seem true to me. The methodology should explain how the occurrences of the various noise sources have been evaluated. Have you counted the number of vehicles inside and outside the university? Have you counted the number of generators around the university? Nothing is said about how you did this. So even the pie chart doesn't look right to me. Please explain clearly what was done.

* Page 7, Figure 4 : Remove this title from the chart.

* Page 7, Figure 4 : Figure not announced in the front text. It must be announced

* Page 7, Legend of Figure 4 (« other activities ») : Be precise. You need to show these other activities individually in the figure, and not mix them up in this way.

* Page 7, title of Figure 4 (« Mediums of Noise Generation ») : I prefer the term "noise source" rather than "medium noise generation"

* Page 7, figure 4 explanatory text (« The presentation shows that generating sets operated by business centres within the school premises and vehicular traffic

within and out of the school premises are the mediums with the highest level of occurrences, while other activities are relatively low. ») : Same observation as for the commentary on the previous figure

*Page 7, Discussion of findings : Delete « of findings », leaving only "Discussion".

*Page 7, Discussion : This is not a discussion. It needs to be completely redone. It does not refer to any other study dealing with noise assessment in teaching or research environments elsewhere, and show whether or not in these two study sites the intensity of noise produced is high compared with elsewhere, although higher than the WHO standard? Look for possible explanatory reasons why the intensity of the noise produced in these two study sites is higher or lower than elsewhere? etc.

*Page 7, first line of the discussion (« The findings show that generator noise, socio-economic activities, extracurricular activities within tertiary institutions, traffic within and outside the school premises, and business outlets within and outside the study locations are the main sources of noise pollution within the study location ») : In the results presented in this manuscript, these sources (socio-economic activities, extracurricular activities, traffic, business outlets, ….) are nowhere to be seen. That's why I've suggested being as precise as possible by breaking out the "others" in the nominative noise sources.

* Page 7, second paragraph (« Analysis was done using the Analysis of Variance (ANOVA) technique. From the test, the ‘F’ value calculated (2.74) is greater than the ‘F’ tabulated (1.86), which implies that there is a significant variation in noise levels within the University of Calabar and the University of Cross River State ») : The result of this statistical analysis is nowhere to be found in the results presented in this manuscript. Secondly, this analysis should make it possible (and this is very important) to specify where the intensity of the noise produced by each type of noise source is high and why. This should lead the author to organize a count of the number of each noise source (how many generators exist at each site, how many kiosks around each study site, how many vehicles are in each study site, etc.) in the different sites.

Also, for an article to be published in a scientific journal, it is not the calculated F and tabular F values that should be entered; instead, enter the calculated F value followed by the degree-of-freedom values (main and residual) and then the p-value.

*Page 8, Summary : Doesn't belong here as there's already a summary at the beginning. To be deleted.

*Page 8, Recommandations : There is no scientific basis for these recommendations. The author should conduct a survey of the users of these various noise sources in and around the study sites to find out why these activities exist there. The results of this survey should be presented as part of the results of this study. In this way, the recommendations to be formulated would derive from the reasons why these activities take place in these study sites. Any other approach to formulating recommendations within the framework of this study is biased.

* Page 8, First line of conclusion (« The study conducted a comparative analysis of noise levels in universities within the Calabar metropolis ») : Unfortunately, nowhere in the work do we see the results of this comparison. The main objective of the work has therefore not been verified.

*Page 9, Plate 1 : This photo sticks out like a sore thumb. What's it doing here? Where is it announced in the text?