



**SDI Review Form 1.6**

Journal Name:	<a href="#">Physical Science International Journal</a>
Manuscript Number:	Ms_PSIJ_44985
Title of the Manuscript:	Determination of reverberation time and sound pressure level of selected lecture halls in University of Agriculture, Makurdi-Benue State, Nigeria.
Type of the Article	Original Research Article

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>Some important errors:</p> <ol style="list-style-type: none"> <li>The equations are incorrect! Eg No. 1! It should be like this:  Sound pressure level, denoted <math>L_p</math> and measured in dB, is defined by:  <math display="block">L_p = 20 \log_{10} \left( \frac{p}{p_0} \right) \text{ dB},</math> <p><math>p</math> is the root mean square sound pressure  <math>p_0</math> is the reference sound pressure;  The commonly used reference sound pressure in air is:  <math>p_0 = 20 \mu\text{Pa},</math></p> </li> <li>Equation number 2: It should be:  <math display="block">L_{eq} = 10 \log \left[ \frac{1}{t_2 - t_1} \int_{t_1}^{t_2} \frac{p_A^2}{p_0^2} dt \right]</math> <ul style="list-style-type: none"> <li><math>L_{eq}</math> = equivalent continuous sound pressure level in dB</li> <li><math>p_0</math> = reference pressure level (typically 20 <math>\mu\text{Pa}</math>)</li> <li><math>p_A</math> = acquired sound pressure</li> <li><math>t_1</math> = start time for measurement</li> <li><math>t_2</math> = end time for measurement</li> </ul> </li> <li>Equation 3: It should be like this:  <math display="block">T_{60} = \frac{0,161 \cdot V}{A}</math> <p>where: <math>V</math> – is room volume [<math>\text{m}^3</math>], <math>A</math> – is acoustic absorption of the room.</p> </li> <li>The meaning of the elements of the equation of their transformation can not be described. It should be like this:  <math display="block">\alpha = I_a / I_i</math> <p>where:  <math>\alpha</math> = sound absorption coefficient</p> </li> </ol>	<p>Sorry dear reviewer, Equation 1 is not a sound pressure level equation but rather sound intensity level equation. Intensity is proportional to square of Pressure level.</p> <p>The equation used in the work is not for continuous sound pressure level but for instantaneous sound pressure level at a particular point. Kindly refer to:</p> <p>Silva L.B.,Santos RLS.(2013). Acoustical Comfort in Primary School Classrooms in the City of Joao Pessoa, Paraiba, Brazil. J Ergonomics 2013, S.1. Retrieved 6<sup>th</sup> June, 2017: <a href="http://dx.doi.org/10.4172/2165-7556.S1-001">http://dx.doi.org/10.4172/2165-7556.S1-001</a>. P. 2</p> <p>The equation 3 in the work is same as the one stated here. However, the Correction for the subscript: <math>T_{60}</math> is accepted and updated in the article.</p> $T_{60} = \frac{0,161 \cdot V}{A}$ <p>Where <math>\alpha = \frac{A}{S}</math> implies that <math>A = \alpha S</math></p> <p>Fig 1: Combining the results makes it easier to compare the reverberation time of each room at a glance. Many journals have figures presented this way too.</p>



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	<p><math>I_a</math> = sound intensity absorbed (<math>W/m^2</math>)</p> <p><math>I_i</math> = incident sound intensity (<math>W/m^2</math>)</p> <p>5. You can not combine the results obtained for different rooms (Figure 1) In Fig. 2. Are the levels equivalent or sound pressure levels? You can not combine results for different rooms!</p> <p>Do not average the value in decibels! This is a big mistake! You can not evaluate logarithmic values with Gauss statistics (average and standard deviation!)</p>	<p>Fig. 2: Correction taken and corrected appropriately. It was an omission on identification on the ordinate pls. They are equivalent sound pressure levels so could be jointly analysed.</p> <p>Averaging of decibel values is wrong indeed. Logarithmic values shouldn't be treated as such. Correction therefore effected.</p>
<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments		

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Are there ethical issues in this manuscript?</b>	<u>(If yes, Kindly please write down the ethical issues here in details)</u>	The reviewed work is highly educative hence appreciated by the Authors.