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Integration of Acoustic Solutions for Classrooms

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Abstract : The neglect of classroom acoustics is dominant in most educational facilities, meanwhile, hearing and listening is the learning process in this kind of facilities. A classroom should therefore be an environment that encourages listening, without an obstacles to understanding what is being taught. Although different studies have shown teachers to complain that noise is the everyday factor that causes stress in classroom, the capacity of individuals to understand speech is further affected by Echoes, Reverberation, and room modes. It is therefore necessary for classrooms to have an ideal acoustics to aid the intelligibility of students in the learning process. The influence of these acoustical parameters on learning and teaching in schools needs to be further researched upon to enhance the teaching and learning capacity of both teacher and student. For this reason, there is a strong need to provide and collect data to analyse and define the suitable quality of classrooms needed for a learning environment. Research has shown that acoustical problems are still experienced in both newer and older schools. However, recently, principle of acoustics has been analysed and room acoustics can now be measured with various technologies and sound systems to improve and solve the problem of acoustics in classrooms. These acoustic solutions, materials, construction methods and integration processes would be discussed in this paper.

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