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Acoustic Analysis of Campus Classrooms: How Do Acoustics Effect a Learning Space?

Acoustics are often a little understood part of room design, yet the acoustics of a room are crucial to the success of a space designed for learning. With too much background noise, or a room with a poor frequency response, the intelligibility of a speaker can be severely inhibited. In a space that has these or similar issues the learning environment is at risk of being impaired. To gain an understanding of standard classroom acoustics, this project consists of an objective examination by way of a software based frequency analysis test, as well a subjective review of background noise and frequency response in a selection of Montana State University classrooms. The end result of this project is a qualitative analysis of these campus facilities, their overall functionality including what factors may inhibit the learning environment. The final report includes recommendations for possible improvement in these facilities, as well as an analysis of why certain locations have good/poor acoustic qualities.