

Bus Music Volume and Human Hearing

Auapaau, Matavai (School: Tafuna High School)

Public transportation such as buses often plays music at high decibel levels. Knowing this, I tested my hypothesis that bus music volume is above the safe decibel levels for human hearing, using an app called Decibel X. I rode the local buses and enabled the app. The app measured the decibel levels of the music. On each bus ride, I switched my sitting locations from the front, to the middle section, and to the back of the bus to collect the needed data. Each data set was analyzed and interpreted. The established safe decibel levels for human hearing are 70dB and below. The recorded decibel levels from the bus rides were 74dB and above. The highest decibel level was 108 dB which is as loud as a live rock band concert. The highest decibel levels were recorded from the back of the bus, where the speakers were located. This study showed that most local buses in American Samoa play music that is well above safe decibel levels for human hearing. It is also planned to elaborate this study using more resources and testing more forms of public transportation. This study can be used to educate the local citizens about decibels and how they can affect hearing if they're above safe decibel levels.