

Visual information effect on the subjective evaluation of floor impact sound

Jeong-Ho Jeong(jhjeong92@gmail.com)¹, Sung-Chan Lee², Jong-In Choi²

¹Fire Insurers Laboratories of Korea, ²Yongsan University

Abstract

Floor impact sounds one of the major complaints and source of a civil dispute in Korean apartment buildings. A lot of researches were conducted for developing floor impact sound isolation system and materials. Also, some researches on subjective evaluation on low-frequency impact sound were conducted mainly in laboratory conditions with any visual information. A recent Japanese study reported that subjective responses between the large living room and bedroom environment were different. Therefore in this study, subjective experiments on rubber ball impact sound with different visual environmental conditions were conducted. For the subjective experiments, rubber ball impact sounds were recorded in various apartment buildings presented through multi-channel loudspeakers and sub-woofer. For the presentation of different visual information, 360° pictures taken in the living room and bedroom in a mockup apartment building were presented through a VR device. Subjective evaluations were conducted twice with more than one month time interval and the same subjects have participated in the experiments

References

[1] Floor impact sound, VR, Subjective evaluation

Biography

JeongHo Jeong is a senior researcher in Fire Insurers Laboratories of Korea. He is interested in building acoustics and acoustic emergency signal.