

② (柳班)

Reduction of Stress by Making the Sound Pleasant

OUNO Sora TSUDA Rintaro YAMAMOTO Daigo
YAMAMOTO Yuki YOSHIKAWA Koki

Abstract

In Japan today, disasters are very frequent, and problems in evacuation centers during disasters are often discussed. We focused on the problem of noise in evacuation centers, and thought that it might be possible to make the noise pleasant by overlaying control sounds on the noise.

1 Theory and Experiment

In our experiment, a questionnaire was conducted on 782 people, 745 students and 37 teachers, at a school-wide assembly held in the gym. The participants listened to a total of 15 sounds of three types: noise only, control sound only, and noise plus control sound, and were asked to rate their level of discomfort.

2 Results

It can be concluded that ripple sound was the most effective. However, when it comes to babies, only the score with wild birds was positive.

3 Conclusion

The control sounds with low frequency are effective against the noises with low frequency, and the control sounds with high frequency sound are effective against the noises with high frequency.

4 References

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5 Key words

Noise, Control sound, Frequency, Dispersion, Rain, Sound of wave, Wild bird's ripples, Rattling, Snoring, A baby's cry