

PRESENTER:
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Can measurements of personality predict how loud people will listen to music?

Background

Noise Induced Hearing Loss represents a major source for long term hearing damage and impairment. Studies have found that a small portion of an average cohort will select volumes above 85dBA, which viewed as the beginning of the zone of significant risk for Noise Induced Hearing Loss.

The aim of this study was to test the correlation between music volume listening, and two candidate psychometric measurements. These were measurements of risk taking as measured by the DOSPERT-30 risk taking, and sensation seeking as measured by the BSS-8. The study also applied the Youth Attitudes to Noise Scale as a control.

Method

N=35
Students without serious hearing impairments.

Profiling Survey
Participants were given a form to collect demographic information, and to administer the DOSPERT, BSS-8 and YANS tests.

Listening Test
Participants were played three test tracks, with and without added filtered pink noise, and allowed to select their preferred volume.

Correlation Analysis
Participant Psychometric and Attitude test scores were analysed for correlation with Listening Test volume selections.

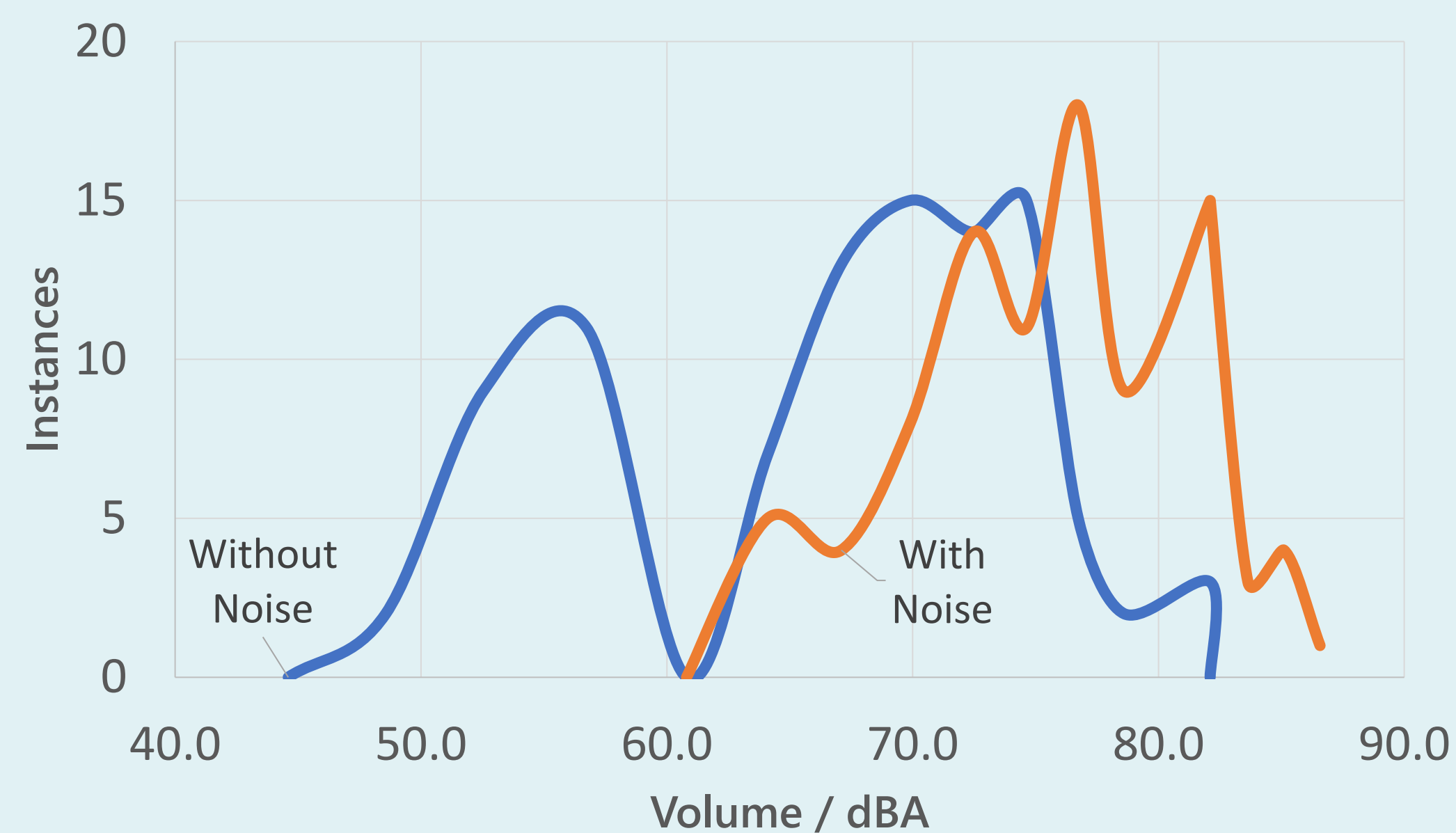
Results

A cohort of 35 individuals participated in listening tests, of which 32 completed psychometric testing. This led to a detailed set of psychometric results, and corresponding listening tests, which produced extremely weak correlations (averaging $r=0.2$ for experience seeking, disinhibition and recreational risk taking)

The study therefore was unable to demonstrate a correlation between the psychometric and attitude measurements, and participant music volume selection.

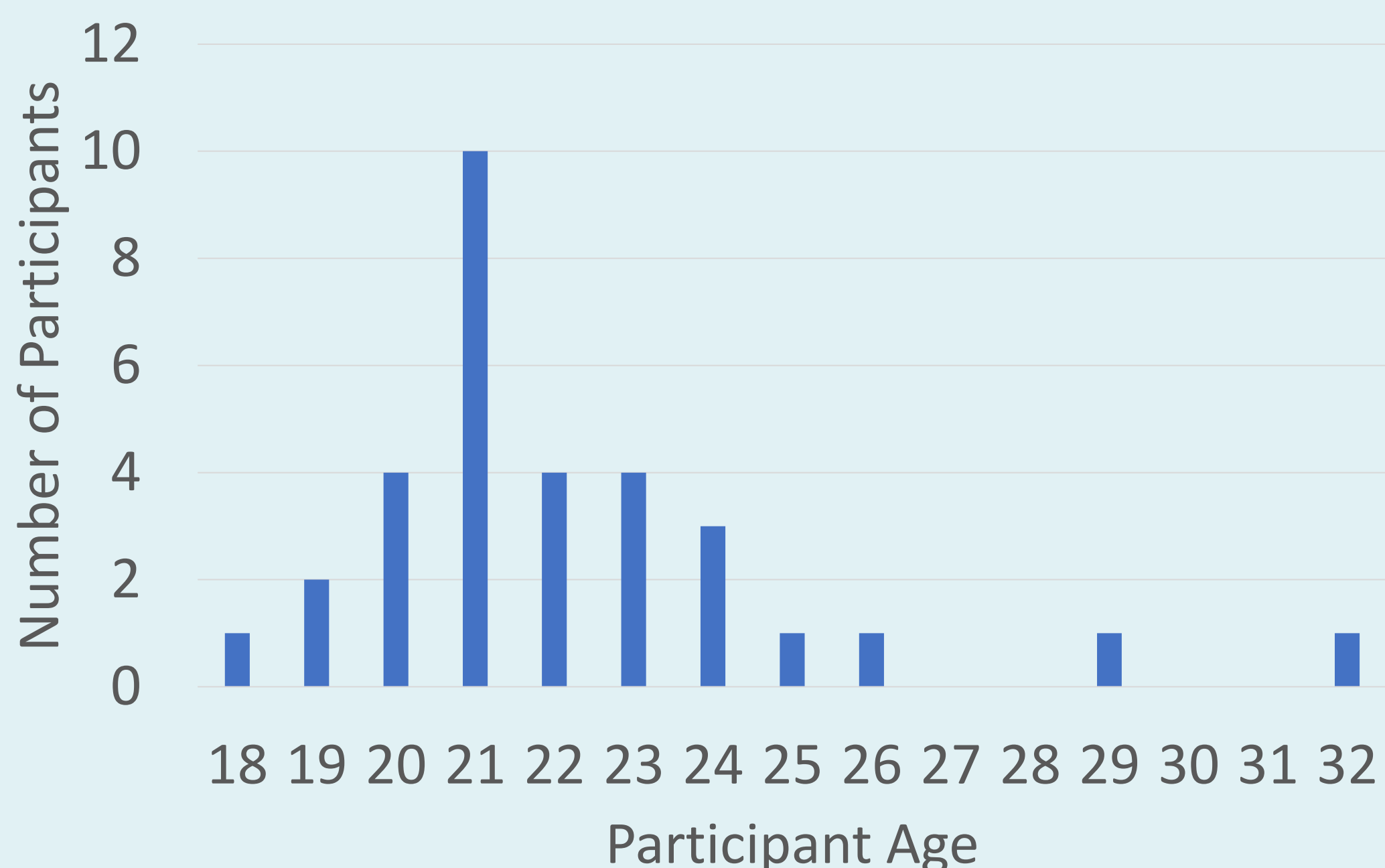
Participant Volume Selection

Participants were asked to select music volumes with and without added background noise. The distribution of their selections is shown below. The blue line shows results without added noise, the orange line shows results with added background noise (85.3dBA filtered pink noise)



Cohort composition

The study had a cohort of 35 participants, of whom 32 completed the Profiling Survey correctly. Most of the participants were within a similar age bracket, all came from a wide variety of educational backgrounds.



Psychometric-Volume Correlation

Participants were played three tracks with and without added background noise, and were allowed to select a volume level for the music. Their selection was notated and converted into dB(A) using a Head and Torso simulator.

Measurement Category	Correlation without Noise	Correlation with noise
Risk Taking	0.07	0.16
<i>Ethical</i>	-0.11	-0.04
<i>Financial</i>	0.16	0.13
<i>Health and Safety</i>	0.00	0.12
<i>Recreational</i>	0.26	0.24
<i>Social</i>	-0.10	0.07
Sensation Seeking	0.15	0.34
<i>Experience Seeking</i>	0.22	0.23
<i>Boredom Susceptibility</i>	-0.03	0.26
<i>Adventure Seeking</i>	0.12	0.15
<i>Disinhibition</i>	0.27	0.25
Modified YANS	0.10	0.12

The study found weak correlations throughout, the greatest correlations were found for Experience Seeking, Disinhibition and Recreational Risk Taking.

As such, this study has been unable to find the correlation sought out, and as such has produced a null result.

To discuss this study, please contact:
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This study was the work of Sky C. Hawkins, with gratitude to Lee Davison, Chris Barlow and Liam Scott.



Read a copy of my study!