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Interactive Effects of Visual and Auditory Intervention on Physical Performance and Perceived Effort

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ABSTRACT

The purpose of this study was to investigate the effects of using different types of media on physical performance and perceived exertion. This study was divided into two parts. In Part 1, we examined the effects of different combination of audio and video interventions on physical performance and rating of perceived effort (RPE). We recruited 20 collegiate students who performed a 12-minute cycling task (where they were asked to bike as hard as possible) under 4 conditions (music, video, music and video, and control) in a randomized order. Results indicated participants in the 2 media groups (music & audio) reported a significantly lower score for RPE. In addition, there was also an effect of media type where participants in music condition perceived less effort on the cycling task compared to the video condition. Part 2 examined how music preference influenced physical performance, but used a running task (where they were asked to run as hard as possible), and by recruiting a much larger sample. Seventy-five students were assigned into 5 groups (high preference and high motivation, high preference and low motivation, low preference and low motivation, low preference and high motivation, and control) based on responses on the Brunel Music Rating Inventory (BMRI). Results showed that music preference, but not its motivational quality, had a significant effect on physical performance. Overall, these results show that listening to music, and in particular preferred music increases physical performance and reduces perceived effort.

Key words: music preference, media type, exercise performance, BMRI

Key Points

- Among different sensory stimulations, music can enhance physical performance more strongly than video.
- In addition to the motivational level of the music, music preference can also influence the physical performance of aerobic exercise participants.

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