CONFERENCE PROCEEDING

Correlation Between Music and Concentration Among Gifted and Talented Students

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ABSTRACT

Listening to music while studying has become a common practice among students. Some students believe that it will improve their curricular efficiency, while some researchers disagree with this notion. The goal of this study is to discover the different forms of music and how they affected the degree of attention among gifted children. Through a random sampling method, 200 students from PERMATA Insan College, Islamic Science University of Malaysia aged between 13 to 17 years old were chosen to participate in this study. Data collection is done through a 30-question questionnaire-based survey established by the researchers. Students were asked to state their preference for each music sample that may help them concentrate while studying. The students showed the strongest preference towards pop music (mean=3.945), while they least preferred rock music (mean=2.842). The highest correlation coefficient is between rock and hiphop (r=0.712) while the lowest is between pop and jazz (r=0.223). This research concludes that listening to different types of music has an impact on the degree of attention among students. These findings have the potential to provide light on the connection between music and students' concentration and to guide the development of methods aimed at boosting concentration in the classroom.

Keywords: *Music, concentration, gifted students*

INTRODUCTION

Music is regarded as a form of art that combines sounds and rhythms. It encompasses a wide range of genres classified based on their characteristics and cultural origins. Music is mainly divided into six categories:

1. Jazz: Jazz first emerged in the early 20th century created mostly by black people in the United States (Tormakhova, 2020). The music's constant features are improvisation, and freedom in rhythmic and melodic dimensions (Costello, 1992).
2. Hip-hop: In the 1970s, African American communities in New York City saw the emergence of hip-hop culture (Adedeji, 2022). Hip-hop has developed into a worldwide phenomenon with a big influence on dance, fashion, and political issues. Hip-hop music incorporates rhythmic beats and rhyming speech.

3. Rock: Rock was invented in the middle of the 20th century and has multiplied into several subgenres ever since (Ford, 2007). Rock music is characterised by high-pitched vocals, repetitive electric guitar, powerful drumming, and bass guitar.
4. R&B (Rhythm and Blues): R&B started out in African American communities in the United States in the late 1940s (Stratton, 2007). Mellow, cool-sounding music complemented by a keyboard as its main instrument defines it.
5. Pop: Tin Pan Alley and early jazz are the sources of pop music's origins (Goldberg, 2021). It often has melodies that are catchy and simple to sing along to and appeals to a mass audience within a contemporaneous time and space.
6. Classical: Classical music has a long history spanning several centuries. A distinct melody and a chord or other accompaniment make up the homophonic texture of the song.

Previous studies have shown that music can indeed enhance academic performance (Kumar, 2016). One study (Pramono et al., 2019) shows that classical and gentle background music can improve concentration and reading comprehension in young adult women, aligning with the Quran's emphasis on speaking gently:

"Speak to him gently, so perhaps he may be mindful of Me or fearful of My punishment" (Taha: 44).

Due to the complexity of this body of research, the effectiveness of using music to aid concentration is still widely unknown. Thus, this study seeks to identify various genres of music, and further investigate the impact they have on the concentration of listeners.

METHODOLOGY

200 students aged 13-17 from Kolej PERMATA Insan, Universiti Sains Islam Malaysia, were asked to participate in a 30-question questionnaire-based survey. A pilot study involving 35 participants was conducted to evaluate the research design's feasibility. A consistent correlation was present among all items in the questionnaire, with Cronbach's Alpha score of 0.910 suggesting strong reliability. Using a Likert scale of denoting strong disagreement and 5 denoting strong agreement, students were asked to state their preference for 30 music samples from pop, jazz, R&B, rock, hip-hop, and classical music.

RESULTS AND DISCUSSION

The students showed the strongest preference towards pop music (mean=3.945), while they least preferred rock music (mean=2.842). The highest correlation coefficient is between rock and hip-hop (r=0.712), while the lowest is between pop and jazz (r=0.223).

Table 1. Music genre preference among gifted students (N=200)

Music Genre	Mean Score	Standard Deviation	Mean Score Interpretation
Jazz	3.219	0.912	Medium
Hip-hop	3.281	1.031	Medium
Rock	2.842	0.998	Medium
R&B	3.792	0.770	High
Pop	3.945	0.764	High
Classical	3.618	0.865	Medium
Total	3.449	0.630	Medium

*1.00-2.33 (low), 2.34-3.66 (medium), 3.67-5.00 (high)

Table 2. Correlation between music genres

		Jazz	Hip-hop	Rock	R&B	Pop	Classical
Jazz	Pearson Correlation	1	.247**	.528**	.463**	.223**	.593**
	Sig. (2-tailed)		.000	.000	.000	.002	.000
Hip-hop	Pearson Correlation	.247**	1	.712**	.294**	.490**	.240**
	Sig. (2-tailed)	.000		.000	.000	.000	.001
Rock	Pearson Correlation	.528**	.712**	1	.279**	.362**	.361**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
R&B	Pearson Correlation	.463**	.294**	.279**	1	.540**	.311**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
Pop	Pearson Correlation	.223**	.490**	.362**	.540**	1	.290**
	Sig. (2-tailed)	.002	.000	.000	.000		.000
Classical	Pearson Correlation	.593**	.240**	.361**	.311**	.290**	1
	Sig. (2-tailed)	.000	.001	.000	.000	.000	

** Correlation is significant at the 0.01 level (2-tailed)

Participants in this study expressed the highest preference for continuing tasks with the accompaniment of pop music, which supports the findings of Khan and Ajmal (2017) suggesting that pop music can boost positive mood and happiness levels. This might also be due to the fact that pop music is in higher demand and is perceived to

be more familiar by young students. On the contrary, rock music is least preferred, aligning with findings proposed by Smith and Morris (1977), stating that stimulative music may increase worry scores and interfere with concentration.

CONCLUSION

Conclusively, the findings suggest that listening to pop music while studying is the most preferred method among students to increase concentration levels. However, to determine if the types of music had a substantial impact on students' performance, were equivocal. The provides room for more studies in the future to delve deeper into the intricate relationship between music and concentration.

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