The Effect of K-Pop Music on the Concentration Level among College Students

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Abstract: K-pop music has been one of the most influential contemporary musical genres nowadays. Hence, curiosities on its educational benefits aroused the interest of this paper. This experimental study aimed to determine if K-pop music has a significant effect on the concentration level among college students. 32 participants consisted of 16 males and 16 females were randomly assigned to the experimental and control groups. A reading comprehension test with a good internal reliability (Cronbach's alpha of 0.88) was utilized to measure the concentration level of the students. K-pop music was selected based on the recently awarded songs. Independent Sample T-test were used to analyse the data. The results suggested rejection of the null hypothesis while highlighting the possible academic or educational benefits of K-pop music. Hence, the data showed that K-pop music positively affected the concentration level of the college students. This indicated that listening to music while taking a test can boost the college's students reading comprehension. Further, there seems to be no significant difference in terms of the participant's socio-demographic characteristics in terms of their concentration level as affected by K-pop music.

Keywords: K-pop Music, Concentration, Music, K-pop, Reading Comprehension

INTRODUCTION

Throughout the years, the music industry hasevolved, and a new genre called K-pop or Korean Pop hasemerged. The K-pop genre has catchy beats, hooks, raps,and instrumental for dance breaks. Some K-pop groups are known for having upbeat melodies in their songs, while others have jazzy ballads or hip-hop, nevertheless, they are still considered under the term "K-pop". It exhibits a wide spectrum of musical elements as well as visuals. It is a hybrid of western influences such as jazz, R&B, hip-hop, soul, and rap and Korean aspects such as extensive choreographies with synchronous dance movesthat match the lyrics. The artist also undergoes years of training under entertainment agencies, they received intensive training in dancing and singing that can go for numerous years hence the reason behind the artist can perform singing and dancing at the same time. K-pop is also known for its unique style, the artists wear colourfuland stylish clothing, and they drive some of the styles andtrends for younger people (MasterClass Staff, 2022).

The K-pop genre is relatively new, though itstarted in the early 90's it did not immediately become famous throughout the world. The early fans outsideSouth Korea of this genre encountered prejudice. At first, other people considered it weird because of the artist's visuals. Nevertheless, it is currently becoming more accepted as the K-pop wave spreads through different countries.

Given that the K-pop genre is still new, there is alack of study about the possible effects of this music otherthan the joy it gives because of its pleasing rhythms, extraordinary choreographies, and visuals of itsperformers. Instead of entertainment, the researchers would like to see what it can offer in the aspect of academics. Having a diverse type of music that may helpthe students in their studies is beneficial as it will offer more options for them to listen to. The lack of study concerning the possible effect of K-pop music on a person's concentration level drives the researcher to conduct this research. As mentioned previously, the supporters of the genre encountered prejudice as this wasviewed as something different because of its characteristics that are not usually found in the other existing genre. This study may alleviate the negativeconnotations that

surround the K-pop genre and shed light on what is still unknown.

Music do not only serve as a motivator. It can also help you feel less stressed and more optimistic. And because music has different effects on different people, we cannot give a straight answer whether music is beneficial to people in general. However, it is undeniable that certain genres of music can improve concentration, proper function of memory and even makes an individual alert (Raypole & Klein, 2020).

Students now listen to music to accompany them while studying at the same time it acts as an aid in their focus; this was backed up in a study by Kumar et al. (2016). Music can assist students concentrate when studying to the degree that they prefer to listen to music while learning. This good discovery is essential to justifying the present practice of listening to music while studying because it has no negative impact on student attention. In fact, it may increase their academic achievement. Individual preferences for specific genres of music appear to have a substantial impact in helping students concentrate.

While working or studying, listening to music may aid attention. The music you listen to has an impact on your mood. Classical music, particularly baroque classical music, or nature sounds, according to experts, are wonderful choices for increasing focus (Raypole & Legg, 2019). Solis-Moreira (2022) also stated that the activation of various brain pathways may be linked to music's influence on information processing and memory. Researchers discovered that hearing melodies facilitated more word chunking, or separating a word into familiar bits, compared to quiet, by scanning people's brains as they memorized words. This method facilitates information retention. When listening to music, brain scans revealed less activity in the prefrontal cortex, suggesting that music makes remembering music-related episodic memories easier.

A study by Wang and Leiberoth (2016), showed the significant effects of listening to music while their participants answered an online quiz on a website called Kahoot!. Based on their observation and findings, it was seen that the use of audio in Kahoot! had the largest impact on the classroom. In terms of contact, reaction, spirit, and dynamics, the audio immediately increased the amount of energy in the room, allowing for a more engaged setting. The best influence on classroom dynamics was obtained by combining both points and audio/music.

Concentration, as defined by Cherry (2021), is the act of focusing on a single thing for a continuous period of time, during this period the person keeps their focus on their task until the task is finished or if a certain amount of time is achieved. This behaviour is vital to students as it is directly connected with learning (TargetStudy, 2018). Concentration is something we can teach ourselves. Teaching concentration includes actual practicing, and mastery of attention. We cannot focus our mind in one snap, and everyone has different attention spans. In keeping your attention in control, you can have a peace of mind. This is something powerful that can be learned by people themselves (Gul, 2019). Concentration is not just about focusing one's attention; but being able to think about the ideas in our minds and understand the reason why the person is thinking about it. It brings us clarity and is not limited to focus. Even if a person is faced with difficulties, one can solve it with proper concentration and thinking (Usha, 2021).

According to Mcleod (2018), Treisman's Attenuation Theory of Attention is the improved version of Broadbent's Filter Model of Attention where he stated how attention could be filtered. As various stimuli exist around an individual, that person is able to filter all the stimuli and focus on one thing at a time. This is how a person avoids overloading the information needed to be processed. But Broadbent's theory still can be improved, which is the result of Treisman's Attenuation Theory. It explains how different messages received by a person can be weakened and focused on one stimulus. An example is given in order to be further understood; a person focuses on attending to a phone call, while your neighbour is singing outside your house, and at the same time a T.V. is also left playing in the background. This theory tells how an individual can weaken the attention coming from the sound of the T.V. and your neighbour, which enables

the person to focus on the phone call. It emphasizes how the attention is not cancelled out but can be weakened.

The general objective of this study is to determine the significant effect of the K-pop music on the concentration levelof the college students.

1. What is the socio-demographic characteristics of the participants in terms of:
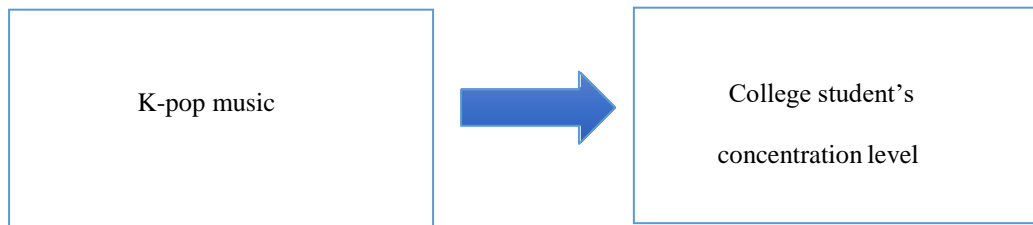
    1.1 age

    1.2 sex

    1.3 year and program

2. Does K-pop music have a significant effect on the concentration of NUB students?

3. Is there a significant difference on the concentration level of the NUB students as affected by K-pop music in termsof their socio-demographic characteristics?

Figure 1. *The conceptual paradigm of the study.*

Method

This study is used a between-group true experiment research design as it aimed to establish if the K-pop music has a significant effect on the concentration level among college students. In terms of data gathering, the researchers gathered the 32 randomly selected college students from National University Baliwag and were divided equally into two groups: the experimental group and the control group, both groups composed of 8 females and 8 males. The experimental group answered a reading comprehension test while listening to a K-pop music playlist while the control group answered the reading comprehension test without any music. The data gathered was analysed using the JASP and Microsoft Excel.

The researchers used the reading comprehension in mental ability test developed during the Psychological Assessment course by Sabariaga et al. (2022). It gathered the needed information on whether a student's concentration is enhanced while they are listening to K- pop music while the participants answer the test. The researchers reached the authors via email to ask permission to use their test as part of the experiment. This test includes 50 items with easy, moderate, and hard questions answered by 100 respondents. They utilized the Kruder-Richardson formula 20 for the data analysis and got a .88 reliability estimate. The participants will be given 40 minutes to complete the test. According to Chiang (2017), the reliability of a test will measure if you can trust the scores that will come up from the test. It tells you how well it measures the characteristics of the test. There is nothing to conclude when a test is not reliable, which makes the reliability the minimum requirement for a test.

The K-pop music playlist that the researchers used for the experiment are composed of K-pop song that was awarded as the Song of the Year from year 2017- 2021. The researchers chose the K-pop music tracks with song of the year award because of the criteria that needs to be met. The criteria for the award before 2021 are 20% online voting, 40% expert evaluation, 30% digital sales, and 10% record sales. After 2022, the criteria consist of 60% digital song downloads and streaming (40% from South Korea and 20% global) and 40% judge panel evaluation (Khan, 2022).

The K-pop music playlist is composed of the following:

• Cheer Up by Twice- Song of the Year awardee 31st Golden Disc Awards (Channel-Korea, 2021).

• Signal by Twice- Song of the Year awardee of 2017 Mnet Asian Music Awards (Channel- Korea, 2021).

• What is Love by Twice- Song of the Year awardee of 2018 Mnet Asia Music Awards (Naver, 2018).

• Boy in Luv by BTS- Song of the Year awardee of 2019 Melon Music Awards and Mnet Asia Music Awards (Herman, 2019).

• Dynamite by BTS- Song of the Year awardee of 2020 Asia Artists Awards and Mnet Asia Music Awards (Hong, 2020).

• Butter by BTS- Song of the Year awardee of 2021 Mnet Asia Music Awards (Hong, 2021).

• TT by Twice- Song of the Year awardee of 2017 Gaon Music Awards (Hwang, 2017).

• DNA by BTS- Song of the Year awardee of 2018 Annual Soompi Awards (Herman, 2018).

• Idol by BTS- Song of the Year awardee of 2018 E! People's Choice Awards (Macke, 2018).

• Celebrity by IU- Song of the Year awardee of 2022 Golden Disc Awards (Hicap, 2022).

• Spring Day by BTS- Song of the Year awardee of 2017 Melon Music awards (NAVER Corp., 2017).

• Love Scenario by iKon- Song of the Year awardee of 2019 Gaon Music Awards (Soompi, 2019).

Results & Discussion

The table below indicated the descriptive statistics of the two groups

Table 1. *Frequency & Percentage Distribution of Experimental & Control Group in terms of Year Level*

Year Level	Experimental Group		Control Group	
	f	Percentage	f	Percentage
1st	6	37.5%	3	18.75%
2nd	3	18.75%	2	12.5%
3rd	5	31.25%	8	50%
4th	2	12.5%	3	18.75%

The first table shows the frequency of the experimental and the control group under year level. Both groups have16 participants, which means there are 32 participants overall.

Table 2. *Frequency & Percentage Distribution of Experimental & Control Group in terms of Program.*

Program	Experimental Group		Control Group	
	f	Percentage	f	Percentage
BS Accountancy	1	6.25%	-	-
BS Architecture	1	6.25%	2	12.5%
BS Information Technology	3	18.75%	2	12.5%
BS Psychology	11	68.75%	10	62.5%
BS Hospitality Management	-	-	2	12.5%

The table 2 shows the frequency of the participants in terms of program in both groups. It is seen how the B.S.Psychology program has the most participants overall.

Table 3. *Frequency & Percentage Distribution of Experimental & Control Group in terms of Age*

Age		Experimental Group					Control group			
	F	Mean	Median	Standard Deviation	Percentage	f	Mean	Median	Standard Deviation	Percentage
18	3	43.33	45	6.66	18.75%	2	29.00	29	11.31	12.5%
19	4	39.50	39.5	3.51	25%	2	25.50	25.5	4.95	12.5%
20	3	43.33	44	2.08	18.75%	1	22.00	22	-	6.25%
21	4	41.50	44	5.26	25%	7	24.24	21	7.13	43.75%
22	2	46.50	46.5	3.54	12.5%	3	25.33	24	4.16	18.75%
25	-	-	-	-	-	1	25	25	-	6.25%

The table 3 shows the mean, median, standard deviation and the percentage of the students' in terms of their age. The most number of participants in both the experimental and the control group are both the 21-year-old students. Thoughit is also seen how the 19-year-old participants has equal frequency under the experimental group.

Table 4. *Frequency & Percentage Distribution of Experimental & Control Group in terms of Sex*

Sex	Experimental Group		Control Group	
	f	Percentage	F	Percentage
M	8	50%	8	50%
F	8	50%	8	50%

The table 4 shows equal number of participants for the male and female, in both the experimental and controlgroup. The total frequency is 32.

Table 5. *Summary of the Control and Experimental Group*

Group	N	Mean	Standard Deviation	SE	Coefficient of Variation
Control	16	25.06	5.99	1.50	23.92
Experimental	16	42.31	4.51	1.13	10.66

In table 5, an equal number of participants is shown in both groups. It is also seen how the Experimental group (M = 42.31) had a higher mean than the Control group (M = 25.06).

Table 6. *Test of Significant Difference*

Socio-demographic	p
Overall	0.01
Sex	0.18
Age	0.41
Year	0.55

In order to identify if a significant difference exists between the mean scores of the experimental and control group, a student's t-test was utilized, and the equality of variances was not taken into consideration. The results showed that there is a significant difference between the mean scores of the control and the experimental group. Moreover, this means that those who listened to K-pop music while taking the test achieved higher scores than those who did not receive the treatment. This implies a positive effect on the concentration level of the participants.

To identify if significant differences exist between the mean scores of the participants from the experimental group with respect to the demographic group in which they belong, multiple Kruskal-Wallis tests were performed. Results above show that there was no sufficient evidence to conclude that there exist significant differences the scores based on their age (p = 0.41) as well as first, second, and third-year students (p = 0.55) at the 0.05 level of significance. A student's t- test was used during the analysis of the males and females. It is seen that there is no significant difference even in the category of sex. (p = 0.18)

Conclusions

Based on the data gathered by the study, the following conclusions are hereby made:

1. K-pop music has a positive effect on the students' concentration level in terms of reading comprehension. This suggests that listening to K-pop music while taking a test can boost college student's reading comprehension.

2. There is no significant difference among the concentration level of college students in terms of their reading comprehension when group according to their socio-demographic characteristics.

3. K-pop music is a viable musical option among college students in terms of their efforts to improve their reading comprehension.

Recommendations

Given the results of the study, the recommendations are hereby presented:

1. *To the Students.* The researchers encourage the students to widen their options and consider on using K-pop music during their studies.

2. *To the Teachers.* The researchers would like the teachers to let their student's use the studying technique that suits their style, may it be with or without music.

3. *To the Future Researchers.* The researchers recommend to find other relevant literature and studies to get a deeper insight with the other factors that can affect a student's concentration. They can also dig deeper with how the frequencies of the music can affect the brain of different people. Utilizing intelligence test on the participants is recommended to lessen the uncontrolled variables. In like manner, search for another test to measure the concentration level.

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