

Impacts of Music on the Academic Performance of College Students After Covid-19

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Abstract

Music has become an important part of our life. In order to address how music affects academic performance of college students, we undertook this small study about how music actually help students to focus on their studies. Many studies had been done on how music helps to focus and concentrate while studying. Our paper will also touch the concentration part on why student actually listen to music? With that being said, our paper touch how music energize, motivate, refresh and help student with mental and emotional health. Quantitative analysis is used to determine the result of this study by sending google forms to four hundred thirty-eight college students and high school students of different countries. The finding reveals that many students listen music to refresh themselves, to bring positive energy and to help themselves focus on given task. Above all, our study showed that music has a calming effect on the person's mind and helps them concentrate better. Furthermore, our research aimed to understand how music plays a role while studying and through the analysis of the findings we got to understand what the general conception of music to them was and how they use music. Another aim of this study is to know how often student listen music during Covid-19 pandemic and how it helps them to get through the pandemic which showed that the musical interest of the listener was one of the main reason why they listened to music and had increased over the pandemic period.

Keywords: *Music, college student, frequency of listening, academic performance, distraction*

1. Introduction

The word "music" has roots in many different languages, including the old English word "musike" from the middle of the thirteenth century, the old French word "musique" from the twelve centuries, and the Latin word "musica," which comes from the Ancient Greek word "mousike" and means "art of the muses." The muses were the nine gods of science and the arts in Greek mythology, and they gradually came to be connected with music in particular. In order to create ordered vocal and instrumental sounds for enjoyment and emotional expression, music is a type of art. As well as being written and performed for entertainment, religious, or ceremonial reasons, it also promotes our physical, mental, and emotional well-being.

With change in fashion, trend, taste and preference of the people, the music that they listen to has also changed accordingly. People used to listen to the old classical music genre in the past but now most of the people and especially the youth are interested in rap, rock and other hip pop genres. The way they react, engage and behave to old classical music has also changed. Because the old generation continues to create music, younger generations are the primary consumer of new music, and it is their behavior and taste that shape which type of music genre are hits. The birth of a new genre happens only when a new or young generation agrees on hits (Baily, 2020). Moreover, Covid-19 pandemic has brought huge changes in music trends, people's behavior and engagement in music. Post-pandemic effects are still unclear but the music interest of the people during pandemic has changed a lot and the research on impact of covid-19 on music consumption has found that people spending on music has decreased by 45% compared to pre-pandemic, as live music events and physical sales being severely affected.

The primary aim of this study is to find out the musical impacts on college students and how it has affected them before, after and during Covid-19 pandemic. Whether through this pandemic, there was a shift in their taste of music, or has retained the same through the phase. Either they had a lot of free time during lockdown which made them find the new genres helping them discover new music they like, or they listened to the same genre of music they liked. Much research conducted before this were based on a general generation and were not particularly focused on the academic performance of college students and what were their music impacts during and after the pandemic. Through this research we aim to find out what music applications are popular among college students. If they like to purchase albums and listen to music or they

prefer to listen directly through music applications. Most of the students nowadays are seen using their earphone plugin for almost all day. This results in studying whether it has affected the lives of students and how it has changed the way they study, and how it has helped them in academic performance.

Music can be seen to have multiple effects on human thinking, depending upon the number of hours they spend listening to music. This difference in musical preference shapes the personality trait of the listener, music creates emotion which are conveyed and understood by the listener depending on their emotional mindset, which can make them recall a memory and affect their mood. Therefore, what music you like shows a lot about what kind of person you are. People's taste in music can be distinguished as empathizer and systematic, where empathizer prefer mellow music that gives them deep emotion compared to systematic which prefers intense music with complex sounds. Similarly, during the pandemic many lives were lost, people had to overcome many challenges both emotionally and physically, people had to find newer ways to escape this new life, who faced anxiety and depression and had to turn towards music to seek solace. During this time, music was more than just a collection of sound and tunes, it was an outlet for them to release the emotions that they had inside them and make their day a bit better during the period of self-isolation.

2. Objectives

- 1) To study the impact of music on student's concentration, memory and performance as a whole
- 2) To see whether their music interest have changed before and after Covid-19

3. Literature Review

Music has existed for a long time, and its perception has changed over time. Music consists of different forms of sounds and rhythm which creates a tune that a person may like depending upon their taste. Music can be defined into different genres like Jazz, Blues, Classical, Folk and many more, each with its unique distinctive characteristics. Through the passage of time, music has evolved and created newer genres like Latin, R&B, Rap etc. The introduction of newer genres has created different tastes in generations. People born during this time could be said to be the one exposed to both the old and new forms of music, they are stuck in a situation of time where both the old and new music are getting popular. The Learning population can be said to be a part of the population that has either joined their higher education or pursued higher education, and such poses limited research data on these groups of people and most base their research on popular opinion, media and trends. The current pandemic has affected many countries, making countries go into lockdown which could have affected them as their regular habits have been disturbed and they are made to find newer things to do during lockdown, which could have affected their music preferences, affecting them subconsciously or consciously.

The different perception of music for College students could be accounted for by psychological as well as cognitive functions. Cognitive functions include communications as well as self-reflection, which shows that music is a means to communicate with the user, conveying emotions which they can see themselves in. The Thomas Schafer study concluded an experiment of 53 students that were asked to listen to six musical pieces, from classical, electronic, rock, rap, pop and folk and were asked to rate each of how much and why they liked it or what made them in a good mood (Schafer and Sedlmeir, 2010). A regression analysis of the data collected showed that music being a means of communication remains the factor for music preference followed by self-reflection, the reason why they liked the music. These studies could be related to the present College students about their different music preferences and why each of them has their own taste of music. It is clear that music was the means through which they could communicate and share their ideas. Music preferences tell us what they like to listen to, giving us an idea on what type of person they really are and how they relate to others. Moreover, in an electroencephalogram (EEG) experiment conducted on 10 College students, who were made to listen to songs that won musical awards and whose brain activities were recorded while they listened to it. The result showed that College students had peak brain activities when songs that had higher ratings and those that were easily recognizable, which showed music recognition played an important role in musical preferences of College students.

Studies on the role of music during the first wave of coronavirus concluded that most of the participants had changed in their frequency of musical engagement and the research shows the engagement

in music has increased compared to previous year and situation. Their overall survey shows that music continued to play a vital role in their day-to-day life during the pandemic. They collect data only from European and North American participants, and they suggest further research is necessary to clarify how music engagement affects people from different countries based on their culture and socio-political context during pandemic and after pandemic. This research will focus on how the music perception of gen z changes after the pandemic and how it affects their emotional and mental health.

The pandemic has made a huge impact on many countries in terms of economy as well as the mental health of the people. This effect varies from person to person depending on how vulnerable they are. Music is used in many psychological situations to help people not feel alone during the time of self-isolation and help reduce their anxiety and depression. Research conducted in Spain on the usage of Music in times of Covid-19 showed that during the pandemic people were spending more time on musical activities like listening, singing, playing musical instruments, dancing, etc., which helped the people to cope with emotional distress and increased their knowledge on the different uses of musical instruments during the lockdown (Cabedo-Mas, 2021).

Listening to music is becoming a part of life for many people. Mr. Kumar conducted a study to find out if listening to music helps with students' concentration and academic performance. Music listening has become a usual practice among the students (Kumar, 2016). Through the developed technology, students can just download the songs from the internet and listen anytime. Most of the students listen to music while studying and doing other activities. This action raises the question about how effective their concentration on study will be. Studies were conducted to learn what kinds of music enhances their concentration. Two hundred Bachelor of Medicine and Bachelor of Surgery (200 MBBS) students were experimented by giving them questionnaires to collect information for the research. The result showed that when the students were listening to soft music it had helped them improve their concentration and by listening to classical music it benefited them in increasing their intelligence quotient (IQ) and named this effect as the Mozart Effect. The researchers even find out how long students spend listening to music while they study. Data was collected to understand how listening to music affected their concentration and what kind of music genres they listened to. The major findings from the article were that listening to music actually helps students to concentrate better when the students are in a mood to listen to music. The research showed that listening to music and studying simultaneously did not pose any problems to their brain effectiveness, rather it helps to improve the performance in academics and their effectiveness. Most students listen to music while doing any activity and the question of having any adverse effect on their academic performance and their concentration level was a great concern for many of the parents. However, this study proved that it's not really a concern as music actually boosts their efficiency. As the research will be done to study about the impacts of music on academic performance, studying this paper helps to study about how music affects the students and understand about the benefits of listening to music and their perceptions of music from the surveys conducted.

Some of the policy makers are reluctant to support music as one of the subjects in learning institutes provided that their educators, administrators, artists, and their parents would concentrate more on musical activities than focusing on their studies. However, some people believe that music should be brought in school as a lesson for the children. Research conducted on this topic revealed that music helps in the development of cognitive skills and in the social emotional aspect of discipline (Scripp, 2002). As a result, it is unclear how music tutors and decision makers may assist in resolving what seems to be a false dilemma between essentialist and instrumentalist. The gap between the two were studied basing it on a large amount of research conducted decades ago which revealed a strong and a positive relationship between music and learning which supported the fact that there is another interactive model of learning. A generative neurological cognitive analysis reveals a strong, reliable connection between music and learning. Music can be used as a tool for developing the socio emotional mind and modify behaviors in schools and institutes.

Quantitative research conducted on social emotional function of music listening has shown that music has been used to make users create different emotional states, help control their emotional stress, used as a means of communication to express their personal thoughts, etc., and many researchers agree on the fact that the emotions one feels is one of the biggest reason why they listen to music which helps them to activate, change and empower emotions as time passes by (Gurgen, 2016). Research also shows the reason behind

why people listen to music include energization, relaxation and just for the joy of it. It was also shown that people tend to feel their emotions through music. Among the student demographic, they were found to be engaged in listening to music anywhere between two to nine hours in a day. Genres are also greatly varied according to the different age groups or their stage in life, i.e., childhood, adolescence, adulthood etc. It was also found that people tend to have a greater liking for music that is mid-range in complexity. They tend to seek familiarity in music and their tastes also change according to the environment that they are in.

Many research have been conducted on different generations regarding the music preferences and its impacts during the pandemic and thus there are only few that have been made for the post pandemic and their data on the effect on students after the pandemic is still unclear. This research will answer how music interests of students have changed over the pandemic, and answer how music has impacted them, what are their preferred means of music application. Overall, answering what are the impacts of music on their academic performance.

Studies have proven that listening to pleasant music while performing an academic career helps students to battle with their emotional stresses and improves their ability to catch up on good grades. The one who is involved with long term music training in non-professional musicians is interlinked with an improvement and development of an individual's working memory. A student taking a musical course achieves better grades than general students who have joined physical fitness, physical fitness correlates less with academic performance. Each year, students who have chosen musical courses performed higher grades than those students who have not chosen music as an optional course. Therefore, music contributes several positive effects on an individual's memory.

Research conducted by Antony, Vishnu and Gayatri (2018) found out that music played an important role in the academic performance of the students. They found out that 40.5 percent of students listened to music while they studied whereas 60.4% responded that music increases their efficiency, but they lacked concentration when they were studying in silence. They were able to make out that the people who had musical knowledge had more benefits as music had an effective effect on relieving stress. Their research included questions regarding their interest in music and how it helped them to study. Moreover, Naveen et al. (2016) conducted a cross sectional study about the effects of music on concentration and performance of students which showed that 47% of the participants felt that music helped them to concentrate while studying, 29% responded that music helped them keep their mind calm and while the rest did not prefer music as they thought it was distracting. The findings from the research concludes that music has a beneficial effect as it helps in their concentration and can improve the academic performance of students.

4. Hypothesis

Null Hypothesis (H0): Students do not get distracted listening to music while studying which impacts their academic performance.

The null hypothesis "Students do not get distracted listening to music while studying which impacts their academic performance" means that there is no significant relationship between listening to music while studying and academic performance. In other words, the null hypothesis assumes that the act of listening to music does not distract students and does not affect their academic performance in any way. When testing this hypothesis, we assume that there is no significant difference in the academic performance of students who listen to music while studying and those who do not listen to music while studying.

Alternative hypothesis (H1): Students get distracted listening to music which impacts their academic performance.

The alternative hypothesis "Students get distracted listening to music while studying which impacts their academic performance" means that there is a significant relationship between listening to music while studying and academic performance. In other words, the alternative hypothesis suggests that the act of listening to music does distract students and affects their academic performance in some way. When testing this hypothesis, we assume that there is a significant difference in the academic performance of students who listen to music while studying and those who do not listen to music while studying.

5. Research Methodology

Methodology is systematic, theoretical analysis of the method applied to a field of study. Therefore, for the successful conduct of this research, we are going to use google form and document analysis as quantitative methods for the data collection. This paragraph will cover the entire research technique and process utilized to complete the survey. It covers the research methodology, the population size and the sample frame, the data collection methods and the analysis made on the collected data.

5.1 Methods

The research requires a research method to be adopted which will incorporate different components of the research in a coherent and logical way ensuring that the research problem is effectively directed. The researcher decided to adopt the quantitative approach. A quantitative approach or research focuses on measuring objectives, analysis of statistics or numerical data by conducting polls, questionnaires and surveys. Furthermore, pre-existing data could be manipulated through computations to get the data analysis in a quantitative method.

5.2 Questionnaire Distribution

Google forms were shared to students currently pursuing their studies in high schools, Bachelor's degree, Master's degree and doctorate degree. Students of different nationalities and different universities helped to collect data.

5.3 Population and Sample of Questionnaire

As the research was done to study the impacts of music on college students' academic performance the data are collected from the student age group from 15 to 35 who are currently studying. Calculator.net was used to calculate the sample size. The calculated sample size was 385 when assuming population size is large and unknown (default) and population proportionate 50%, margin of error at 5% and at a confidence level of 95%. A total of 438 people residing in different countries and who are currently pursuing their education (higher education, bachelor's degree, master's degree and doctorate degree) constituted the sample of this study.

5.4 Data Collection Tool and Process

5.4.1 Google form

The data was collected online by sending a google form which helped to gather a large amount of data within a short period of time. This method helps save time, energy, cost and it is the fastest method of collecting data. It is flexible as we can change it at any time and any moment which is convenient to both the surveyor and respondent. Moreover, it is a free online tool which can create surveys in a few minutes and allow us to frame different types of questions like short answers, multiple choice questions, verification boxes, linear scale, grid of several options etc.

5.4.2 Microsoft Excel

MS-Excel is used to analyze the collected data through survey questionnaires into chart, graph and tabular format. With its various mathematical and analytical tools of interpreting the collected data, it helped in effective usage of human resources and knowledge imposing minimal workload on researchers.

5.4.3 Regression Analysis

Regression analysis is used to analyze the relationship between two variables to understand how each variable is related to each other. The values from the regression analysis helps to analyze the relationship.

5.4.4 ANOVA Test

ANOVA test is used to analyze if the hypothesis of our study should be rejected, or it should be accepted. ANOVA test is used to test the hypothesis drawn about a relationship between two variables. With a confidence level of 95%, the hypotheses were tested using the significance level. If the significance level (f) is below 0.05, this means that the null hypothesis should be rejected and accept the alternative hypothesis.

6. Data Analysis

Data analysis is a process of regulating, cleansing and modeling data. This analysis helps in discovering important information, drawing conclusions and helping businesses to collaborate and achieve better results.

6.1 Responses

To collect data for the research, a questionnaire was sent to individuals possessing a bachelor's degree, master's degree, doctorate degree and those in high school of which we have received about 438 responses. The questionnaires were all answered successfully by the respondent and have shown a good response rate which we deem the data is good for analysis and interpretation.

6.2 Results

6.2.1 Demographic

Classification of respondent based on Gender

Table 1 Classification of Respondents

Gender	Number	Percent
Male	163	37.2%
Female	275	62.8%
Total	438	100%

Out of the total respondents (shown in table 1), it can be seen that the respondents of our questionnaire consisted of females with 62.8% of the total respondents which equaled 275 respondents of our total followed by male with 37.2% of the respondents amounting to 163 respondents.

6.2.2 Age Group of the Respondents

Individuals of age 15-30 plus years old took part in the survey. From the responses received, people aged 15 to 20 years formed 53.4% (234 respondents) which is above half of the sample size. Followed by people of age 21-25 years old which made up 32.6% (143 respondents) of the respondents. Individuals aged 26 to 30 years composed 2.7% (12 respondents) of the total samples. 11.2% (49 respondents) of the total respondents were people of age 30 and above.

6.2.3 Education Level of the Respondents

The respondents were asked about their level of education which ranged from high school to doctorate degree. 219 (49.8%) responded that they had a bachelor's degree, 203 (46.3%) responded they were in high school, 12 (2.7%) responded that they had a master's degree followed by 5 (1.1%) who responded that they had a doctorate degree. This tells us that our responses had the majority of the data from high school students and those with bachelor's degrees, which helps us know the impacts of music in this level of education better.

6.2.4 Country of the Respondents

People of different nationalities participated in the survey conducted for the study. With the majority of the respondents from Bhutan, it formed 85.6%, which is 375 of the total sample 438. Thai people comprised 3.9% followed by 2.7% of the total were Burmese. Of the total respondents, 2.3% Chinese took part in the survey. Individuals of other nationalities like Cambodia, Nepal, India, America, Sweden, U.K, Pakistan, Sudan, South Africa and Thai-British. The data received from the survey showed that our study will not be about one nationality rather it will be focused internationally. This helps us to understand how people of different nationalities view music and their perceptions on impacts of music.

6.3 Result Analysis

Music has many purposes and almost all the people listen to music in everyday life. Some listen to relieve stress, some listen to refresh, to free from boredom and most people listen to enjoy and spend their leisure time with friends and family. Music can be described in many forms depending upon the nature and usage of it by an individual person. It can be referred to as means of communication. Some messages are better explained in the form of songs and rhythm to convey or gain attention from the public. Many leaders and public speakers talk about saving the Earth which basically means saving our environment from climate change and they come up with many great ideas and innovations but only few people react or respond to this. But when Lil Dicky wrote the song title 'Earth' most people (even youth as they are very interested in music) get his message and act towards saving our planet. Music can be a means of communicating powerful and important messages. Music can be a form of expression. Through music we can express our emotions and feelings which we can't explain in words or action. Most of the people used music as a means of entertainment to relieve themselves from stress, from work and to refresh themselves. Music helps in improving our physical, emotional and mental wellbeing by calming our mind and body. Different people used music for different purposes, depending upon their usage they define music in their own way. Survey shows that 283 (64.6% of the total respondents) respondents out of 438 says that music as a means of entertainment, where 255 (58.2%) says music is a form of expressing our feelings followed by 190 (43.4%) respondents as music being means of improving physical and mental health and 115 (26.3%) as a means of communication, which is shown by figure 4.

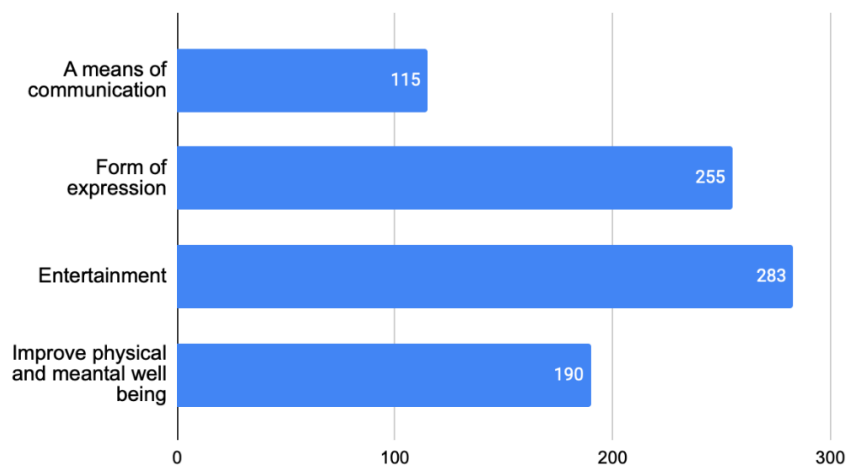


Figure 1 What do you understand when you hear the word "Music"?

Above result shows that the majority of the respondents define music as a means of entertainment. Music is a great source of entertainment, it has the same effect whether it is in villages who enjoy beats of drums or even if it's in the city, the music is the same for all. Entertainment boosts the level of activeness for students. It motivates them to work hard towards achieving their goals. By their opinion of music, it shows music helps them to refresh themselves and dedicate themselves to the learning process.

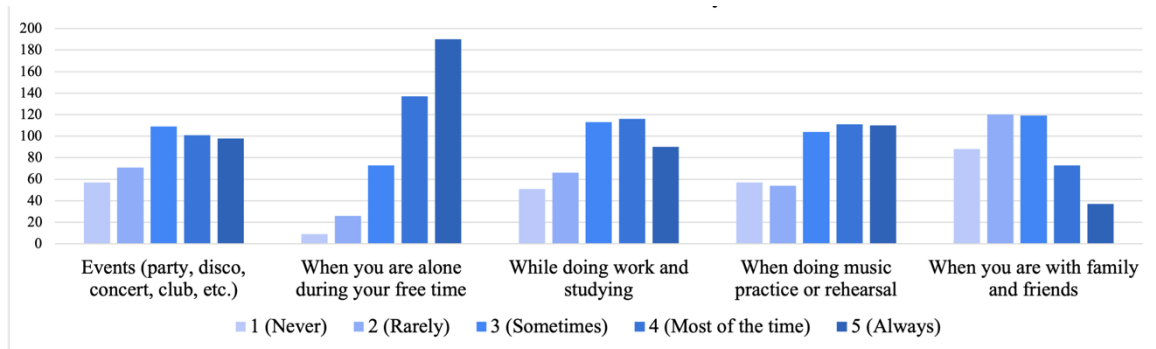


Figure 2 On what occasions do you listen to music?

How many people still drive silently today? Who does not now listen to music when they read, write, cook, or take a shower? No rule is going to change the fact that music today serves as the soundtrack to daily life due to the radio, record player, tape recorder and music application. Also, both classical and pop music are just as likely to assault our ears these days. Not only is music present everywhere, but so is all music (Frith, 2004). Music has served different purposes in daily life. Through the survey conducted, it was discovered that about 192 individuals listen to music mostly when they are alone during their free time. However, it was also noted that some listen to music during music practices and rehearsals. It cannot be denied that some people choose to listen to music at events like concerts, parties, discos, clubs, etc., which is a rare case. The remaining, listens to music while working and studying. Through the study we conducted, it was also found that people choose not to listen to music when they are with their family and friends.

The global pandemic has brought in various changes on the socio-economic condition of a country as well as the day to day, living conditions of the people. The covid-19 pandemic has brought different stress to a person which many have relied on music to effectively deal with socio-emotional coping. Many people engage with music in order to cope with these negative emotions and as a means of social interaction during this pandemic, hence making music important during the pandemic period to meet the individual social emotional needs. One particular change we would like to observe is whether the pandemic has affected their musical interest, making them discover new genres and like them or whether it has remained the same over that period. Our data showed that out of 438 responses, 204 responded (46.6%) that their musical interest had not changed during the pandemic and listened to the same music genre or interest that they had before the pandemic. 67(15.3%) responded that their musical interest has changed by a bit. We also noticed that some of the respondents observed a change in their musical interest, either moderately or had completely changed.

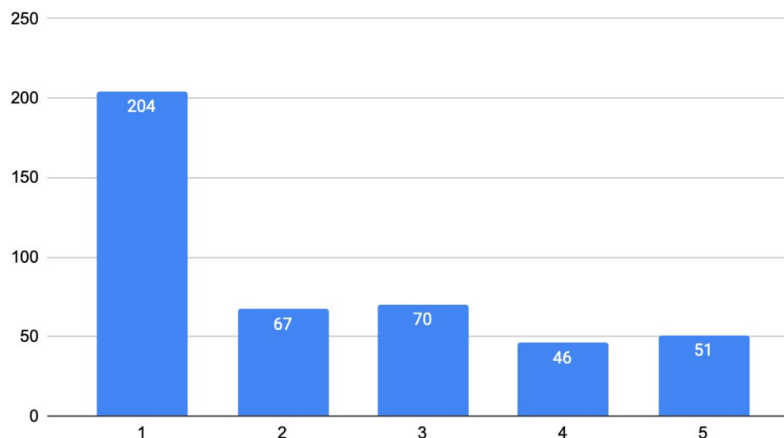


Figure 3 Has pandemic affected your musical interest?

By looking at figure 3 we can make out that 204 respondents were listening to the same music and newer music genres had not sparked interest in them. But the remaining respondent had varying responses to their musical interest being affected by the pandemic as some discovered new musical interests but preferred their old musical interest more while others found newer music genres and liked it more than their previous musical interest. This tells us that the pandemic had fewer impacts on a person's musical interest than a person during the pandemic as more than 40% of the respondents answered that they did not see their musical interest ever changing during the pandemic.

Moreover, the pandemic had forced many people to remain indoors to minimize contact with the corona virus and control the virus from spreading out. But this creates a question of how often people listened to music during the pandemic. Well, the survey showed the data that concluded how much people listened to music before, during and after the pandemic. Before the pandemic, there were more respondents who listened to music around 1 to 2 hours a day. During the pandemic, more and more people started listening more and there were more respondents who listened to music more than 3 hours a day. After the pandemic, the trend returned back, and it looked similar to the data before the pandemic. Respondents reduced the hours they listened to music to 1 to 2 hours a day, maybe due to businesses and educational institutions reopening, which could have kept the people busy.

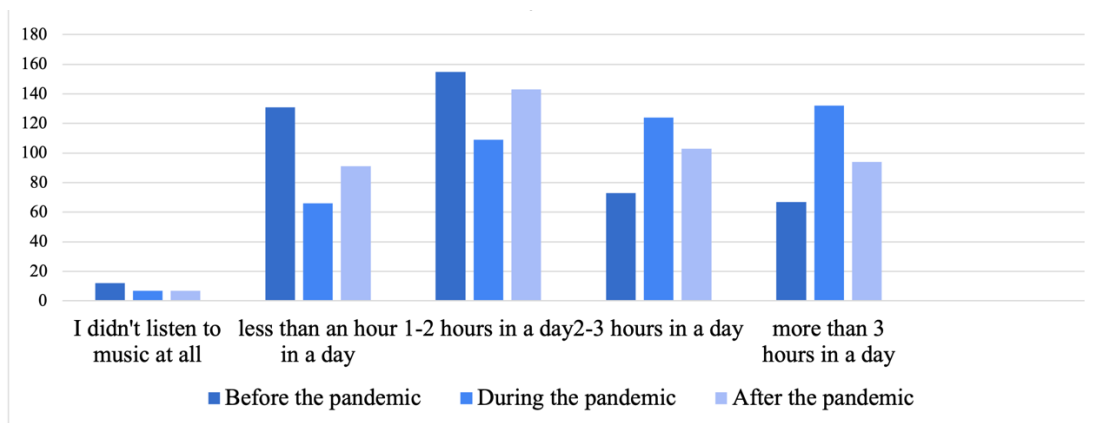


Figure 4 How often do you listen to music?

Pandemic has made a significant impact on the music industry over the past two to three years. It has caused some music industries to shut down all live music programs thereby decreasing the music interest in individuals, several music events such as festivals and award ceremonies have also been canceled or postponed. One cannot deny that music has always been a means of entertainment, provides positive energy and reduces anxiety. Therefore, the musical interest in individuals hasn't changed even though there was a drastic evolution in the music industry. A survey conducted on how often they listen to music before the pandemic, during the pandemic and after the pandemic shows that the time, they spend listening to music during the pandemic period is more than the time they listen before and after the pandemic. Our data shows that during the pandemic, 132 out of 438 respondents listened to music more than 3 hours a day. Whereas, before the pandemic, only 76 out of 438 respondents spent 3 hours a day listening to music and even after the pandemic, only 94 out of 438 respondents listened 3 hours a day. We conclude that most of our respondents have used music as a source of entertainment and the interest of an individual towards music has increased during the pandemic period.

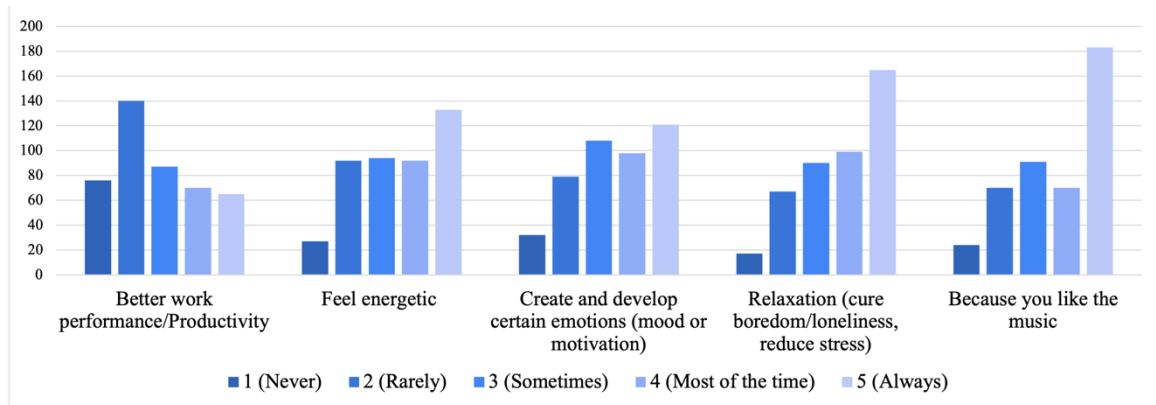


Figure 5 For what purpose do you listen to music while studying?

Many students bring their headphones while going to the library and study halls. Among the students, it has become a practice to listen to music while studying. Does it actually help them to study with music? Some researchers have shown that music helps with concentration, and they have proved their statement with a theory called “Mozart effect”. It defines how listening to classical music helps with concentration and memory (Kumar et al, 2016). As the effects of music on concentration have already been studied, we focused our questionnaire to study about the responsiveness of people and their purpose of listening to music while studying. While some people listen to music for better concentration, some listen to music for better work performance and for productivity, to energize, to create and develop certain emotions (moods and motivation), for relaxation (cure boredom or loneliness, and reduce stress) and because they like the music. From a total respondent of 438, only 135 individuals (65+70) listen to music for better productivity while remaining participants listening to music for this purpose is a rare case. Most of the participants (133+92= 225 out of 438 people) go for music as they feel energetic when studying. Almost half the participants like music as it helps to create and develop emotions like feeling motivated and concentrating better. 60% of the total surveyed (264 out of 438) choose to listen to music whilst studying for relaxation. Listening to music soothes their mind, aids in the reduction of stress and passes as a leisure activity when alone. Majority of the respondents opts for music in such circumstances because they like the music.

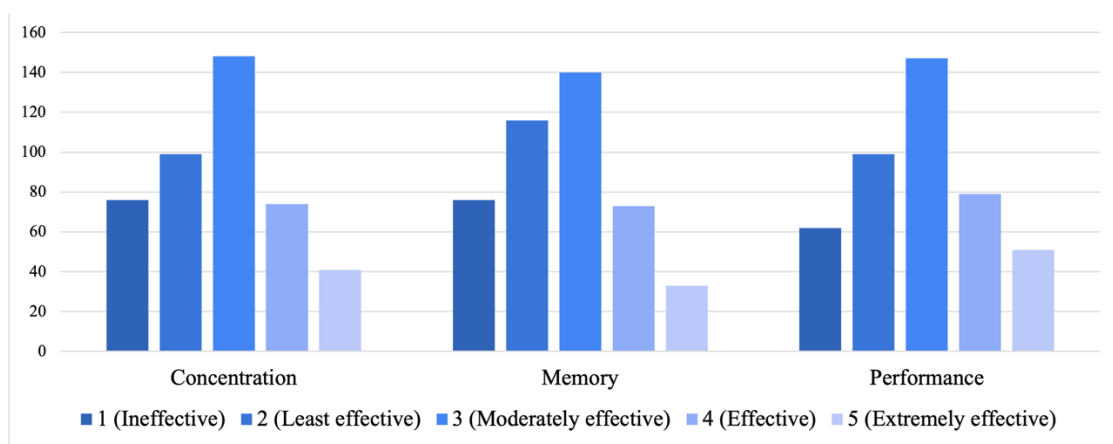


Figure 6 How does background music affect you while you are studying?

Music has always been entertaining and has a power to connect people all around. Music activates the human body and brain, which helps students to reduce stress while studying. Listening to music also boosts your memory and boosts your mood which helps you to keep focused on a given task. Music can have many effects depending on what purpose they are listening for. Many students listen to music while studying or practicing mathematical problems. This acts as catalysis for more concentration, memory and performance.

Music helps to concentrate more by calming down the mind and increasing brain activity, it also helps to remember things by refreshing, and paving more space to the brain and ultimately students can perform well in the test.

Out of 438 respondents (76+99) respondents say that background music distracts them while studying and practicing as they cannot concentrate well due to noise and tracks though it is composed well and soothing. 148 respondents (which is maximum) say background music helps them to concentrate at a certain level. Survey's aim is to find how many respondents say music helps them to concentrate while studying. 115 (74+41) respondents responded that music can be music helpful for them to concentrate and it helps them to focus on solving problems.

Music to improve memory activity. Whatever we study, we tend to forget easily unless we have constant touch with the particular subject. One of the main reasons is lack of proper concentration while studying and another one is studying without any break. When studying something new and something that a student has to memorize, it takes lots of energy and time. Music can help in relieving, refreshing, making our brain calm and increase capacity to retrieve more and new information. 192 respondents say it doesn't help in memory while 140 respondents say it helps at a certain level and 106 say music definitely helps in memory. If music helps in concentration and brain memory, ultimately it will help in improving individual academic performance.

On an average of how music helps in concentration, memory and performance is shown by following average calculation. Average is an arithmetic mean and is calculated by adding a group of numbers and then dividing by the count of those numbers. The finding is made on three different categories (Ineffective, Moderate and Effective) out of data collected on a range of 1 to 5 (where 1 and 2 represent ineffective, 3 is moderate and, 4 and 5 represent effective which is shown by above graph Figure 6).

Average for ineffective (background music doesn't help) is calculate by adding the range number 1 and 2 from the data collected based on how background music helps in concentration, memory and performance and, divided by 3 which is the count of three options (concentration, memory and performance). Clear working is shown by following calculation.

$$\begin{aligned}
 \text{Ineffective} &= \frac{\text{concentration} + \text{memory} + \text{performance}}{3} \\
 &= \frac{175 + 192 + 161}{3} \\
 &= 176 \text{ respondents}
 \end{aligned}$$

Average for moderate (background music help at certain level) is calculate by adding the range number 3 from the data collected based on how background music helps in concentration, memory, and performance and divided by 3 which is the count of three options (concentration, memory and performance). Clear working is shown by following calculation.

$$\begin{aligned}
 \text{Moderate} &= \frac{148 + 147 + 140}{3} \\
 &= 143 \text{ respondents}
 \end{aligned}$$

Average for effective (background music help) is calculate by adding the range number 4 and 5 from the data collected based on how background music helps in concentration, memory, and performance and divided by 3 which is the count of three options (concentration, memory, and performance). Clear working is shown by following calculation.

$$Effective = \frac{115 + 106 + 130}{3}$$

$$= 117 \text{ respondents}$$

From the above average 176 respondents says background music doesn't help, 143 respondents think background music help at certain level and, 117 respondents say background music help in concentration, memory and performance as a result. Since majority of respondents agreed with ineffective, we can conclude that background music does not help much in concentration, memory, and performance, but we cannot neglect the other average. So, we can further conclude that it helps at a certain level but if we need more critical thinking, peace of mind background music doesn't help in concentration and memory. It only helps us to refresh, but it doesn't really help in concentration and memory.

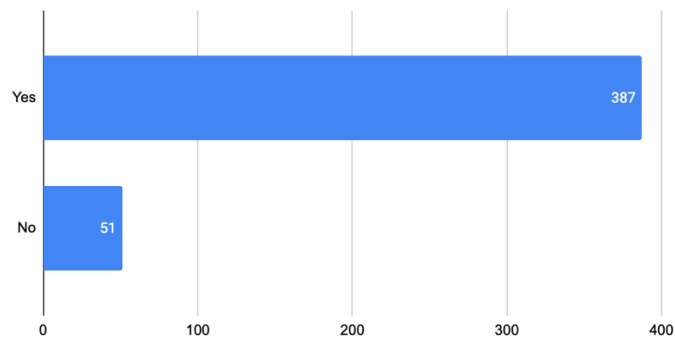


Figure 7 Do you think stress affect your academic performance?

Stress has been associated with taking a huge emotional toll on a person leading to a burnout in that person, along with anxiety disorder and depression. Stress can be seen to have a huge impact on the mental state of a person. Many respondents claim that stress/depression affects their academic performance with 387 respondents (88.4%) responding that they were affected, with the remaining 51 respondents (11.6%) saying it did not affect them. This shows the fact that stress affects academic performance of an individual.

6.4 Regression Analysis

Regression analysis is a statistical technique used to investigate the relationship between one dependent variable (also known as the response or outcome variable) and one or more independent variables (also known as predictor or explanatory variables). Understanding how changes in the independent variable or variables affect the dependent variable is the aim of regression analysis. It is frequently used to understand the connections between variables in a dataset and to create predictions. A statistical technique called regression analysis is used to look at how one or more independent variables relate to a dependent variable. The regression output, sometimes referred to as the regression analysis table, offers crucial details regarding the regression model and the relationships between the variables. For this study, regression analysis was used to study how a person's educational level affects the effects of stresses/depressions on academic performance.

Table 2 Regression Analysis

ANOVA ^a						
Model		Sum of Squares	df (degrees of freedom)	Mean Square	F	Sig.
1	Regression	.745	1	.745	7.329	.007 ^b
	Residual	44.317	436	.102		
	Total	45.062	437			

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.225	.043		28.631	.000
	Current education level	-.068	.025	-.129	-2.707	.007

a. Dependent Variable: Stress and depression b. Predictors: (Constant), Current education level

The regression analysis helps to understand a relationship between two variables. The regression analysis between the education level of the respondents and if stress affects their academic performance is presented in the above table 2, which provides us the R value and R square value. The R value is 0.129, which is closer to 0 and it indicates that there exists a weak positive low correlation between the education levels and if stress affects their academic performance. From the results of the regression analysis between educational level and stress affecting academic performance, it can be concluded that educational level of the person has less effect on stress affecting their academic performance. Educational level of a student is not much related to the stress level of a person. The R square value shows how well the data fits the regression model and indicates how much of a total variation in the dependent variable. From the above table, 1.7% can be explained. This means that 1.7% of variances in stress affecting their academic performance can be explained by the educational level of the respondents. Dependent and independent variable has been used to obtain the results of the regression statistics. The dependent variable in this regression statistics is on the thoughts of stress affecting their academic performances and independent variable is based on the education level they have been studying.

Music helps us in every emotional state depending upon what kind of emotional help we need. Most importantly it helps us to get through our tired school days of work and studies. It helps us calm our mind, refresh and motivates us towards the learning process. Music helps us in many ways and a survey shows that the majority of the respondents say it brings positivity in their daily life and helps to start their day with positive energy. It improves relationships as music keeps us engaged with the people around us and it helps in improving grades. One of the respondents says that music can take you to an imaginary place forgetting all worries and stress, and it boosts energy to work hard towards achieving a goal. Music carries the potential to activate our brain function which helps in the learning process. During the exam students develop a certain level of anxiety, stress and pressure which affects not only their study schedule but also increases the risk of depression, mental health. Survey shows that during such times, listening to music helps them calm their mind and reduce stress and pressure. As a result, they can perform well in exams.

6.5 ANOVA Test

An analytical statistical test called the ANOVA test (Analysis of Variance) is used to assess whether there are significant differences between the means of three or more groups of data. To see if there is a statistically significant difference, we compare the variability within the groups to the variability between the groups in an ANOVA. An F-statistic and a p-value are generated by the ANOVA test. The F-statistic is a comparison of the variation within and between groups. The p-value, which assumes that the null hypothesis

is correct, is the likelihood of obtaining an F-statistic as extreme as the one determined from the sample data. We reject the null hypothesis and conclude that there is a significant difference between the means of at least two groups if the p-value is less than the selected significance level, which is typically 0.05. If the p-value exceeds the significance level, the null hypothesis is not rejected, and it is concluded that there is insufficient evidence to support the notion that the group means are different.

Table 3 ANOVA Test

ANOVA (Analysis of Variance)					
Does music distract you?					
	Sum of Squares	df (Degrees of Freedom)	Mean Square	F	Sig.
Between Groups	1.995	3	.665	2.977	.031
Within Groups	96.948	434	.223		
Total	98.943	437			

As shown in Table 3, with a confidence level of 95%, the significance f (p-value) is 0.031 which is less than 0.05, so we reject the null hypothesis that music doesn't distract people of any education level and we accept the alternative hypothesis. After running this test, we could draw a conclusion that music does distract some students of different educational level. Though the data from the survey shows that majority of the respondents do not get distracted by music, but the hypothesis testing shows that music does distract students of different educational level. From these findings, we could understand that music impact students on their academic performance. As some students' study while playing background music, we could assume that music distracts students with their academic performances from the above analysis. Listening to music while studying may not be effective for all students as some might get diverted from their studies and may affect school performance though one of the studies showed that distraction from music is not really a concern as it helps to boost their concentration and memory (Kumar, 2016).

7. Conclusion

This research was made in order to find out the perceptions and the impacts of music on the academic performance of college students and for those who are going to pursue it. It can be seen that music has had many effects, according to the survey that was carried out. Music is seen to have a therapeutic effect on the mind of an individual which helps them relax and thus perform better in their academics. Moreover, the pandemic had kept many individuals isolated which had impacted their mental health, but many used music to bring positivity to their lives. The results from the survey showed that music has been there for them when they were alone which has helped them cope with the loneliness which had impacted not just their relationships but their grades as well. Therefore, our survey has a positive end that music helps students to study in various ways.

The main objectives of our research were to study the impact of music on students and understand if musical interest of students had changed during the period of pandemic. By collecting survey results, we are able to understand that musical interest has not changed and has remained the same after the pandemic. The analysis made through ANOVA and regression helped us test our hypothesis and find the relation between music and their concentration, which we have found out music distracts their concentration and while some benefits from music, mainly those who are fluent in musical knowledge.

8. Limitations

There is always scope for future research to improve the study. This research also has certain limitations that need to be addressed for any future research. First, all the samples collected for this study consisted of many samples from Bhutan. This limits our paper from understanding the views of people from other nations. Secondly, this research was cross sectional study so changes in behavior over time were not observed. Thirdly, if we used a mixed method for research methodology, we could get respondents opinions through interviews and ensure that study findings are grounded in participant's experiences. Lastly, the questionnaire used in this study contained closed ended questions, which may have limited the respondents from freely expressing their perspectives.

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