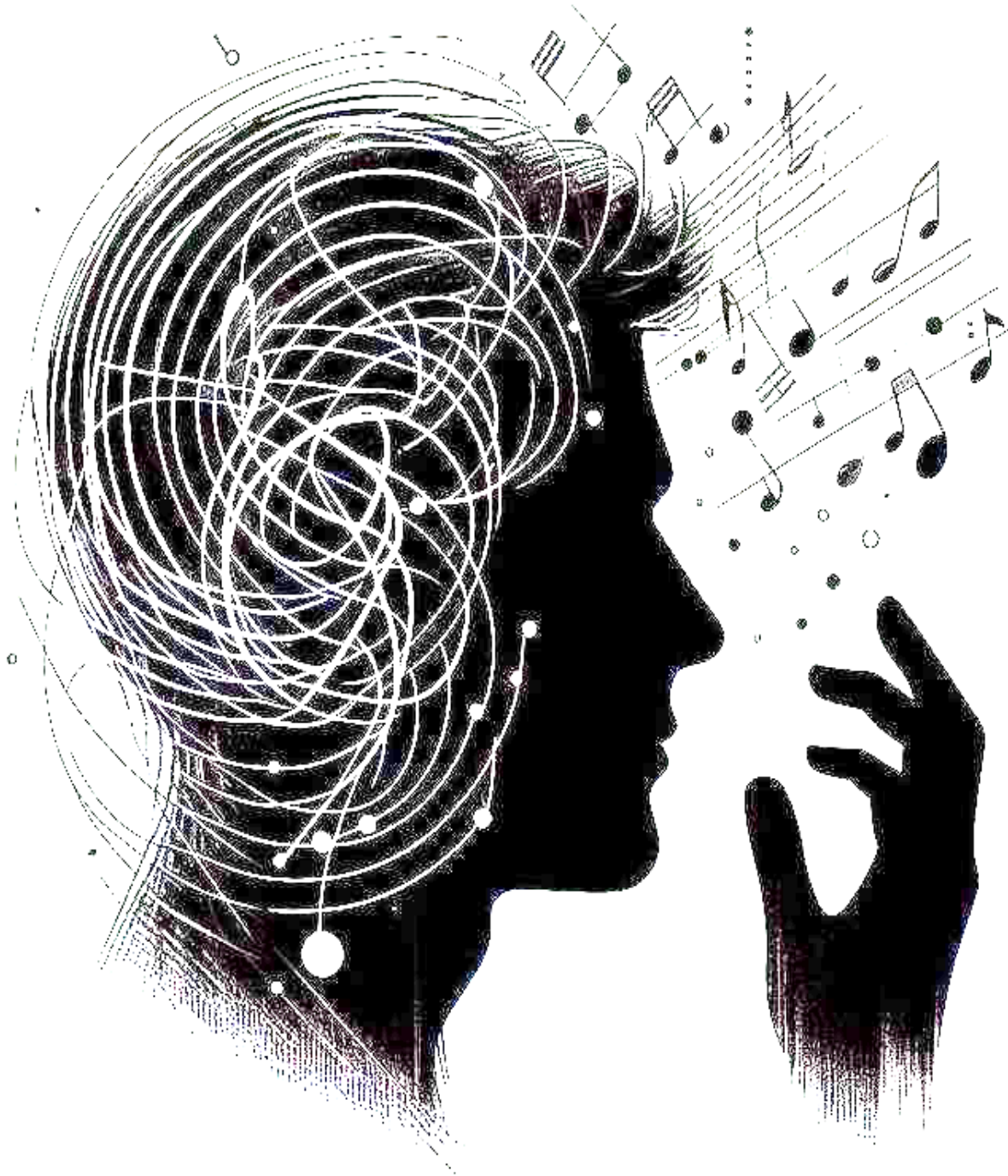


The Effects of Music on Cognitive Performance and Study Efficiency



I have always avoided loud noises however I could when I am studying. However , I always see many students listening to music while they are reading, this made me wonder how they can concentrate while listening to music. This is where I got the idea of what I should do in my research and I figured I could first start from the beginning . When I say this I mean understanding what music is and how it affects our mind or you could say cognitive performance.

According to the Harvard Medicine Magazine(2026), they defined music as “a total body workout for the brain” . Listening to music triggers widespread neural activity across both hemispheres of the brain. This sounds more terrifying because I started wondering how something so common could have such a strong effect on the brain.

Sendelbach et al.(2006) studied the physiological and psychological impact of music on the patients undergoing cardiac surgery. The study showed a significant reduction in pain and Anxiety among patients as a result of music therapy given to them. As it seems music has an impact on our brains and people could use it to reach certain goals. Before starting my research I had my opinion that even though music does have a great impact on our brain it is not a good idea to listen to it while studying. I believe that music could distract students instead of helping them since listening to music also requires concentration as studying do atleast that’s how it is with me. Apparently the answer is more complicated than what I originally thought.

For example, Jim Kwik (2022) argues that some kinds of music can actually help in learning, especially slow music (jazz). In his video “*Listen to This Music to Learn Faster*”. He said listening to different kinds of music changes your state which could actually aid you in learning language faster. He specifically said classical music like the Baroque era. Baroque era music is the music from western history originally from italy, these music are 60 beats per minute which harmonizes with the resting heart rate and puts you in a

relaxed state of awareness. This helps our brain to absorb information more easily. I found this interesting because it shows that the type of music matters more than just playing any music.

Rap music that's the kind of music I like so I tried to listen to them but I have never been distracted in my life like this. All I could focus on was the beat and lyrics of the music, it was like I wasn't reading at all.

Justin Sung (2023) in his video Music + Study = Distracting?! He argues that background music especially popular music create feeling of productive instead of actual learning. He states that learning involves concentration, which can be disrupted by music since the brain is not able to process information completely. This perspective was the same as the one I have.

Music has a direct impact on how our brains process emotions. Blood(1999) argues that brain reacts to different musical notes by giving them pleasant or unpleasant scores which makes the activity we perform if it has pleasant score this steal all attention, for instance listening to rap or this loud/favorite music like pop/rap feels good but the study process is affected since the brain is stimulated by the pleasure of music.



In the process I decided to ask my friends about how they studied while listening to music. I did an interview with one of my friends George. ([Interview](#)). Some of them can not study without music because it helps them feel engaged, others use only background music and instrumental since the lyrics are too distracting. This made me realize even more that people are different, and music doesn't affect everyone in some way. This gave me the idea of doing an experiment on myself. I was doing webwork listening to baroque bangers playlist it was pretty good I felt relaxed that worked on problems that I was familiar with but when I shifted to physics problems the music stopped helping and I lost focus I again switched to writing practice the flow felt good the practice was not difficult but when I switched to rap/bop music I had hard time doing anything right. This matched the study tip provided by The Chens(2025) where she argues that music is needed in tasks that are simple, repetitive tasks, but the difficult task total silence is preferable.

After experiencing myself, I started understanding that maybe music does not affect everyone the same way. It depends on the kind of music, person, and even the difficulty of the task. This made me realize that working memory plays an important role in this topic. Working memory refers to the portion of our brain that stores information when we think or learn something. When music uses up some of that brain space, then we have less room to concentrate on other information. That would be the reason why it becomes more difficult to read or memorize things when listening to music.(Baddeley,2020).



Background music can improve mood and sometimes increase performance on simple tasks. Hallan et al(2002). He also said that students who study listening to certain music perform better than students who study in complete silence. At least that's what he found in his research, which could be different depending on the person because as for me, this background music makes me feel sleepy. He also found that these music help students or people to stay motivated and mentally active while studying which explains why George prefers studying while listening to music.

Perham and Currie(2014) , researchers studied reading comprehension and memory. They found that songs with lyrics are more distracting than instrumental music. Research shows that students listening to background music performed better than those who listened to lyrics. This imphaze that music like classical music is preferable to pop or rap music while studying. This conclusion is the same as the one

made by Kwik(youtuber). After finding all kinds of music that helps in studying, it was time to find out if music would help me or not.

I noticed this in my own experience. Instrumental music helped me to stay calm while I was doing simple tasks like typing skills exercises and doing ppt editing, but it didn't help me to focus or understand concepts very quickly as the research concluded. But once I switched to difficult physics questions, I became distracted even with slow music. My brain felt divided between understanding problems and the slow sleepy sounds in the background, which led to realization that listening while reading music limits concentration by taking most of it and less attention left for learning.

On the otherhand, listening to music can help in reducing stress. Students experience various kinds of stress coming from exams or tests. When students listen to relaxing music, they will be able to relieve themselves from stress and improve their emotional state to prepare for their next learning.

Listening to relaxing music is one of the ways to relieve the body of stress hormones(Thoma, 2013). Even though music doesn't have much effect in consuming information for some students , it helps them to prepare them for next learning which could be counted as a way of helping learning whereas those students who don't use music, they might not recover quickly for the next learning. And these results may explain why students often use music before studying or during breaks.

After researching this topic, my opinion became more balanced. At first, I believed music was always hindering student's concentration. After reading different findings from different researchers and testing myself. I realized the answer depends on the person, on task and type of music. Slow instrumental music helps with simple tasks or repetitive work while silence is what is needed when you want full

concentration of your brain while solving a difficult problem. Music can either distract or help depending on how it is used.

In conclusion, music has a significant influence on cognitive function and studies. There are different findings that prove music can boost positive mood, decrease stress, and even promote focus in some cases. At the same time, it can lower concentration and disrupt working memory processes if music contains lyrics or if the task at hand is difficult. Based on my personal experience and information obtained through researching different sources, I would advise students to pay attention to how their brains react to music rather than copy the actions of other people.

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