#### Listening to Music While Studying

Abstract: Music is a very powerful thing. It affects our brain in ways still unknown. Music can make you feel an emotion in an instant, it's used in therapy, used to relax, and used to get you excited. Today, music is a common tool to use while studying. Students listen to it to relieve stress and drown out all other noise. Extensive research has been done on the effects of music while studying and two arguments have come from it.; music hinders studying and music stimulates studying. However, many factors are involved in these conclusions, such as the type of music, what the person is studying, the personality of the person, and how often they listen to music.

Listening to music comes as a common relief while studying for a test or cramming your homework assignments. It may come as relief to all the other noises like children crying, the t.v. on, busy families, or cars running. People play music to cover the noise of other things, using noise over noise. The question; is music helping or hindering your studying? Is it stimulating your brain or distracting it (Pela, Robert)?

When people listen to music their brains do extraordinary things. In almost an instant a song can make a person feel happy or sad. Music is linked to calming anxiety, releasing immunoglobulin A for immunity, and higher counts of cells that fight bacteria. Music activates regions of the brain the have to do with movement, attention, planning, and memory which have nothing to do with auditory functions (Landau, Elizabeth).



(Ferris, Robert) http://www.businessinsider.com/image-of-our-brain-listening-to-music-2013-6

Knowing that music affects people so strongly many experiments have been run to see how music effects what people are doing, especially today with young people's studies. Research grew in this area in the 1940's and even more so when World War II began. Analysis began to create a certain soundtrack that would improve factory production ( Jiang, Xiaopeng). As research grew and questions became greater a new hypothesis was formed, the Mozart Effect. The Mozart Effect is the idea that listening to classical music enhances the intelligence of people and is good to listen to while studying. In 1993, a psychologist named Francis Rauscher ran an experiment on 36 college students. He gave a spatial reasoning test to the students after listening to 10 minutes of a Mozart piano sonata, 10 minutes of silence, and 10 minutes of a monotone speaking voice. Rauscher found that the students performed significantly better after listening to the classical piece. According to the experiment the Mozart Effect theory was correct. However, Rauscher concluded that listening to Mozart music improved spatial reasoning for about 10 minutes, which is a very narrow conclusion, but was all that came from the experiment (Spiegel, Alix).

Another argument stemmed from the Mozart Effect. The argument that listening to music with lyrics while studying is bad and over stimulates your brain. In general, this claim is talking about studying things like languages, reading, or writing. Glenn Schellenberg, a professor in the psychology department at the University of Toronto, in his studies states that the reason it gets "messy" when listening to music with lyrics is because humans have cognitive limitations. Music with lyrics activates the part of the brain used when you are reading and speaking. When two things are coming at this brain function at once, it makes it more difficult for people to focus, thus hindering your study time. Music has always had it's place in school, but technology has changed and now it can go places where it never used to be, such as a library (Castello Y Tickell, Sofia).

Music has become even more prominent in today's day and age than in the past. This is because of technology. Technology has made music even more easily accessible. We can listen to music in our homes, in our cars, in our rooms, and just strictly in our ears from our phones. This fact is important to think about when discussing the experiment of whether people should listen to music while working, studying, reading, or writing. Technology has made it easier to listen to music while doing all these things and has thus made it an important question to answer.



### Among all 8- to 18-year-olds, proportion of time spent listening to music on each platform:

### (Lane, Jennifer)

http://audio4cast.com/2010/01/26/study-kids-listen-to-internet-radio-as-much-as-broadcast-radio/

Listening to music while studying does not only depend on the music itself, it also depends on the person. The effect of listening to music while studying or performing any task depends on multiple things, such as your personality, how frequently you listen to music, and what you are doing while listening. A study published in 2010 based the findings on whether the person was an extrovert or an introvert. 38 introverts and 38 extroverts were given a reading comprehension test, a prose recall task, and a mental arithmetic test, first with a background of silence, then just with white noise, then with a background of music. For introverts, it was discovered that their performance with any noise in the background at all decreased. This supported multiple hypothesis' of the difference in optimum cortical arousal in introverts and extraverts, which makes its harder for introverts to work with distractions (Furnham, Adrian).

In 1975, 16 male and 16 female college students were given tests of reading comprehension first in quiet surroundings and then while listening to preferred

music. Preferred is the key word. It was music they probably would choose to listen to on a daily basis, music they liked. Claire Etaugh and David Michals, running the experiment, discovered that males actually performed equally as well with music as they did without it.

However, females performed poorly in the music condition compared to the non-music condition. Of the males, 5 reported frequently studying to music, 6 said occasionally, and 5 reported never. Among females, 2 reported that they frequently studied to music, 4 said

occasionally, and 10 reported never. The experiment came to the conclusion that the more you listen to music while studying the better you will perform in a music condition. Unfamiliar sounds are more distracting than familiar ones (Etaugh, Claire).

Many students listen to music to alleviate stress while studying for a difficult test or doing strenuous homework. This practice has become more common because of technology and it is now even more important to understand the impact. Research on the matter is becoming more and more popular. However, there are two sides to the argument and many factors that play into the result (Dolegui, Arielle S.).

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