Multidisplinary lyseum by Zabaikalsky State University

Individual final project

Theme

The Psychology of music: How different genres affect mood and behavior

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Chita, 2026 year

Content

Project title: « The Psychology of music: How different genres affect mood and behavior».

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Project author: Shchelkanova Alina Denisovna, 10th Grade A student

Academic discipline: English

Type of project: research, individual

Objectives:

1) To review scientific literature and studies on the impact of music on human psychology and behaviour.
2) To identify key music genres for the study (classical-music, rock-music, pop-music, jazz, hip-hop, electronic-music), and highlight their key features.
3) To track neurophysiological reactions to music.
4) To find out what emotional reactions different genres of music cause.
5) To find out how people of different ages react to music.
6) To formulate conclusions and practical recommendations («Music First Aid Kit»).

Tasks:

1) Find out the history of the origin of music.
2) To identify major musical genres and describe their key characteristics (rhytm, tempo, melody, other features).
3) To review scientific literature and studies on the effects of music on the human mind, at the neurophysiological and emotional level.
4) Try to understand why there are changes in mood and behavior.
5) Find out what changes each genre brings.
6) To understand how people of different generations react to music.
7) Make a «Music First Aid Kit».

Brief summary:

The project explores the impact of various music genres on people's emotional state and behavior.
The theoretical part reviews scientific data on the mechanisms of music's influence on the human brain and psyche, depending on the

age. The practical part contains a music therapy product - a «Music First Aid Kit» (playlists for different generations that can be used for different purposes and in different emotional states).

Expected results:

1) Systematised data on the influence of popular music genres on mood and behavior.
2) Conclusions on which genres promote relaxation boost energy, improve concentration.
3) Obtaining new information about the neurophysiological effects of music on humans.
4) Obtaining new information about the impact of music on a person's emotional state, depending on the age.
5) Practical recommendations on using music to regulate emotional state in everyday life;
6) A presentation and a research report in English.

Introduction

Relevance of the project:

Music is rightfully considered one of the most admirable forms of art. It play s an important role in personality development: it conveys cultural values, social no rms and ideals, and awakens a person's creative potential and desire to create.
In the modern world, music has become an integral part of people's lives and acco mpanies them almost everywhere. You can hear it anywhere: in shopping centres a nd public transport, in cinemas and on television, on city streets and dance floors, a s well as in many other public spaces. Even schoolchildren often listen to their favo urite tracks through headphones during breaks between lessons.

It is hard to find a person who completely ignores music -
yet few people seriously reflect on how exactly it affects our emotions and behavio ur. Among my peers, everyone has their own musical preferences: a certain genre o r a favourite artist. At the same time, I have noticed that different pieces of music h ave varying effects: some help achieve inner balance and tranquillity, while others, on the contrary, provoke outbursts of aggression.
These observations are what prompted me to choose this topic for my project. I hav e become convinced that music's influence on a person is hard to overestimate - and the deliberate selection of musical pieces can be an effective tool for regulating the emotional state.
This is especially relevant during adolescence, when young people express their fee lings most vividly

The problem of the project:

The impact of music on people's emotional well-being. How can music influence people's psychological state and behavior?

The object of research:

Music preferences of people of different ages

The subject of the study:

Music of various genres (and therefore of different rhythms, tempos, melodies, and characters)

Purpose of research:

Studying the influence of music on the emotional state of people of different ages.

Research hypothesis:

I think that music can affect a person's emotional state, that each genre will have a different effect on mood and behavior.

Research objectives:

1) To study literature and trusted online sources.
2) To study the neurophysiology of music's impact on human emotions.
3) To analyze the relationship between people's musical preferences and their emotional state.
4) To explore how people's mood changes during and after listening to different types of music.
5) To organize information about changes.
6) To create a package of recommendations for improving emotional well-being called "Music Kit".

Research methods:

1) Theoretical**:** analysis of scientific literature, articles, and studies on the topic.
2) Analytical: processing and analysis of the obtained data (statistical methods, comparison, summarizing).
3) Visualisation: creating genre and playlist tables.

Stages of research:

1) Preparatory: formulation of the topic, problem, goal, objectives, and hypothesis of the work, and creating a plan for working on the project.
2) Main: collection and study of literature, analysis and selection of information for the theoretical chapter of the project.
3) Final: project defense: public speech, presentation, and evaluation of the work.

Project deadlines:

September - April 2025-2026 school year.

Practical significance of the work:

1) To provide recommendations for people of different generations to stabilize their emotional state.
2) In music classes, to show how different genres affect your mood;
3) In social studies classes, in topics about psychology and the influence of culture on personality;
4) In extracurricular activities: during training sessions, discussions, and musical events.

Chapter 1. Theoretical part.

The emergence of music and musical directions.

1.1. The history of music.

Music originated in the prehistoric period, long before the 4th millennium before Christ, when the human voice became the first "instrument" and people began using primitive tools such as rattles and bone scrapers. The oldest flute, dating back approximately 35,000 to 40,000 years before Christ, was discovered in Germany. In the era of the Ancient World (from the fourth millennium to the fifth century before Christ), early forms of music recording appeared - for example, cuneiform writing in Mesopotamia around 2000 before Christ; in Ancient Egypt, music accompanied rituals and feasts, harps, flutes and drums were used; in Ancient India, the hymns of the Vedas originated, in Ancient China music was associated with the philosophy of Confucius and the 12-step scale, and in ancient Greece instruments like the kithara, lyre and avlos developed, music was connected with mathematics thanks to Pythagoras, and its connection with theater and poetry was strengthened.

In the Middle Ages (5th–15th centuries), the Gregorian chant, a one-voice church song, was developed, polyphony (organum) began to develop, notation was introduced by Guido d'Arezzo in the 11th century, and secular music by troubadours, trouvères, and minnesingers with the genres of canons and ballads spread. Harps, lutes, first violins, tambourines, and trumpets were used. During the Renaissance (14th–16th centuries), interest in antiquity and humanism was revived, and new genres such as the madrigal and motet emerged. Composers such as Josquin des Prez and Giovanni Pierluigi da Palestrina expanded the use of polyphony and harmony.

During the Baroque era (around 1600-1750), opera, oratorio, cantata, and fugue emerged, concerts and suites became popular, and composers such as J. S. Bach, G. F. Handel, and A. Vivaldi worked. The harpsichord, organ, and improved string instruments also gained popularity.

During the Classical period (around 1750-1820), the symphony, sonata, concerto, and quartet were formed, and the Viennese Classical School flourished with composers such as Joseph Haydn, Wolfgang Amadeus Mozart, and Ludwig van Beethoven (during his early career). This period also saw the establishment of a structured form and clarity in melody and harmony. In the 19th century, the era of Romanticism, emotionality and individualism came to the fore, and program music and national schools (Russian, Czech, Norwegian, and others) developed. F. Chopin, R. Schumann, F. Liszt, P. I. Tchaikovsky, and E. Grieg created their masterpieces, and piano and symphonic music flourished.

In the 20th century, many styles emerged, including Impressionism (K. Debussy), expressionism, neoclassicism, avant-garde, jazz (1920s-1930s), blues, rock and roll (1950s), rock, punk (1970s), hip-hop (1980s), electronic music using synthesizers (since the 1950s) and computer music, minimalism and postmodernism have spread, among significant figures are I. F. Stravinsky, D. Millau, J. Gershwin, B. Bartok and many others.

In the 21st century, we have seen the globalization of genres and the blending of styles, the widespread use of digital technologies and streaming, the development of DIY (Do It Yourself) culture, the flourishing of popular music, electronic music, crossover, and the indie scene, while maintaining academic traditions alongside diverse musical experiments. Today, music continues to evolve, and new genres and artists are emerging.

1.2 Genres of music. Their characteristic features.

Music is a rich and diverse art form, shaped by a wide range of genres - each bringing its own sounds, emotions, and cultural influences to the global musical landscape.

Key genres act as building blocks: they establish distinct styles in terms of rhyt hm, melody, harmony, instrumentation, and lyrical themes. Over time, these genres d on’t just exist in isolation - they interact, inspire each other, and often blend to create new subgenres and trends.

The key genres that form the basis of musical creativity are represented by *classical music, jazz, rock music, pop music, hip-hop, and electronic music*. However, each of these genres is further divided into subgenres. For example: Jazz includes swing jazz, electro-jazz, soul jazz, jazz-funk, and many others; rock encompasses hard rock, heavy metal, post-punk, horror punk, and many other subgenres.

Understanding how each genre differs from the others and what features it has in its structure will help us to understand how different music affects our mood and behavior, which is the goal of my work. The main components of each genre's

structure are rhythm, tempo, and melody. *Rhythm* is a term in music that refers to the organization of music in time. *Tempo* is the speed at which sounds change within a composition. *Melody* is a sequence of sounds that is perceived as a single whole.

- Classical music is characterized by a strict metric rhythm with a clear organization of bars, where the tempo varies in a wide range from slow 40-60 beats per minute to fast tempos over 160 beats. Melody in classical music is characterized by complexity and polyphony, and has a clear structure.

- Jazz is dominated by a free rhythm with specific elements of swing and syncopation, which creates a special atmosphere of improvisation. Jazz tempo organization allows for significant changes during performance, and the melody is based on improvisational principles using blues notes.

- Rock music is characterized by a clear rhythm with a distinctive emphasis on the second and fourth beats of the measure. The typical tempo of rock compositions ranges from 100 to 140 beats per minute, and the melody is often based on repetitive guitar riffs.

- Pop music uses a simple, regular, danceable rhythm, making it accessible to a wide audience. The tempo of pop songs typically ranges from 90 to 120 beats per minute, and the melodies are based on catchy, repetitive phrases.

- Hip-hop, on the other hand, is based on a rhythmic structure that relies on beats and samples, with a typical tempo of 80 to 100 beats per minute. In this genre, the traditional melody is replaced by a rhythmic recitation.

- Electronic music is characterized by a mechanical, regular rhythm with repeating patterns. The tempo varies depending on the subgenre, ranging from 120-130 beats per minute in house music to 135-145 beats per minute in dubstep music. The melodies are based on synthesized motifs and often use arpeggios.

- Jazz has the most complex rhythmic organization due to its improvisational elements and swing, while pop music has the simplest structure with its regular rhythmic patterns. Electronic music has the most stable tempo, while classical and jazz traditions have the most variable tempos.

In terms of melodic development, classical music has the most complex and developed melodic line, while hip-hop has a more recitative form of delivery over

traditional melodies. Improvisational capabilities are maximized in jazz and minimized in electronic and pop music.

More about the differences in genre structure in [Application 1. Figure №1-№4]

1.3. Music and the Brain: Unraveling the Neurophysiology of Emotional Response.

Musical influence on the human body is a complex neurophysiological process involving various structures of the brain. Sound waves first enter the outer ear, where the auricle and the auditory canal focus them. Then, through the middle ear with three bones (hammer, anvil, stirrup), the signal is transmitted to the inner ear. The cochlea of the inner ear contains hair cells that convert mechanical vibrations into electrical signals. When sound waves reach the cochlea, the fluid inside it begins to oscillate, affecting the hair cells. At their base, ion channels open, and potassium ions enter the cell, causing depolarization. Electrical impulses travel along the auditory nerve to the cerebral cortex, where they are interpreted. Different areas of the brain are responsible for analyzing pitch, rhythm, and musical sequences. Modern research suggests that the brain not only perceives music, but also predicts the development of melodies, which triggers emotional responses.

The hypothalamus, a small but extremely important area of the intermediate brain, plays a key role in the emotional processing of music. After receiving nerve impulses from the auditory organs, the hypothalamus converts them into emotional experiences and transmits the corresponding information to the cerebral cortex. Interestingly, the wave oscillations induced by music have similarities with the body's biorhythmic processes, and the hypothalamus processes them in a similar manner, although it is not capable of fully synchronizing musical rhythms with internal biorhythms. This is why complex polyrhythmic structures often cause discomfort in listeners.

The pleasure center is located in the hypothalamus, and when a person listens to music that they enjoy, a number of important processes occur: blood flow in the nervous structures increases, dopamine receptors are activated, endorphins are released, and serotonin levels rise. This leads to a feeling of pleasure and enjoyment. Various areas of the brain are activated during this process: the auditory cortex is responsible for analyzing sound stimuli, the prefrontal cortex forms associations, the amygdala is involved in emotional evaluation, and the hippocampus connects music with memory.

Research has shown that various elements of music can cause certain emotional states. Harmonious melodies, regular rhythms and consonantal harmonies evoke positive emotions. Minor keys, dissonances, and unpredictable rhythmic patterns can provoke feelings of anxiety and tension. Slow tempo, descending melodic movement and reduced intervals are often associated with sadness and longing. Monotonous music can irritate listeners, as the human brain naturally resists monotony.

It is important to note that listening to familiar and harmonious music activates mirror neuron systems responsible for empathy and emotional resonance. This explains why music brings people together on a neurophysiological level, creating a shared emotional state.

Based on these discoveries, music therapy is being developed, a scientifically proven treatment method that helps with stress, depression, sleep disorders, and cognitive dysfunction. Music can improve memory, increase concentration, reduce pain, and strengthen the immune system. Professional musicians have been found to have increased gray matter in areas associated with motor and somatosensory activity, suggesting that the brain is plastic in response to musical practice.

At the end of the 20th century, scientists Francis Rauscher and Gordon Shaw conducted a groundbreaking study at the University of California, Irvine. Their experiment, involving students who listened to a Mozart sonata, revealed a temporary improvement in spatial reasoning. This discovery marked the beginning of the famous "Mozart effect," although it was later established that this effect was not limited to Mozart's music.

Modern research continues to explore the multifaceted impact of music on the human body. A group of scientists led by Stefan Köhlsch from the University of Oslo conducted a study that showed that listening to instrumental music reduces the level of cortisol (a stress hormone produced by the adrenal cortex) and the need for sedatives in patients during medical procedures.

Neurophysiological studies by Gottfried Schlaug from Harvard have revealed structural differences in the brains of musicians and non-musicians. People who are professionally involved in music have: an increase in the number of vascular-nervous bundles, strengthened connections between the hemispheres, activation of different brain regions when composing music

The cognitive effects of music are studied by Katherine Loveday from the University of Westminster. Her work shows that music stimulates the brain more than other activities due to emotional involvement.

The long-term effects of musical practices were studied by Emma Jaffa from Monash University. Her 2026 study found that regular listening to music after the age of 70 reduces the risk of developing dementia by almost 40%.

Modern findings confirm that 15-20 minutes of listening to harmonious music can lead to: a decrease in the stress hormone cortisol, an increase in subjective well-being, improved attention and memory performance.

1.4. Emotional reactions to different genres of music.

Emotional responses to different musical genres are influenced by their structural features, rhythm, melody, harmony, and cultural context.

- Classical music.

Classical music is often associated with relaxation, stress reduction, and improved concentration. Slow, lyrical pieces (such as the Adagio from Bach's concertos) can increase serotonin levels, which can improve mood and reduce depressive symptoms. Pieces in major keys (such as "Spring" from Vivaldi's "Four Seasons") tend to evoke positive emotions, increase energy levels, and improve mood. Minor keys, on the other hand, can promote reflection, introspection, and catharsis (psychological relief) in processing negative emotions.

Research shows that listening to classical music can increase emotional tone with a predominance of positive emotions and a decrease in negative background. Some compositions are used in music therapy to help in living and sublimation of negative emotions.

- Rock-music

Rock music often evokes intense emotional responses, such as joy, sadness, rage, and euphoria. Its melodies and lyrics can serve as a means of expressing and processing emotions, which can have positive effects on mental well-being. Some studies suggest that listening to heavy music can be relaxing and reduce aggression, while also providing a sense of subjective inspiration. Australian researchers from the University of Queensland found that listening to extreme music (punk rock, metal, and scream) after being provoked helped participants better process their anger.

However, the impact of rock is ambiguous. For some people, listening can lead to the emergence or increase of anxiety, especially if the music is not liked. Finnish studies have shown that during listening to hard rock, women increased activity in the brain zone responsible for emotional control, and in men it decreased. Women noted that they listen to heavy rock to distract themselves from negative emotions, and men - to express negative feelings.

- Pop-music

Pop music is often associated with entertainment, relaxation, and de-stressing. Its simplicity and catchiness can improve mood and help people escape from their daily routines. Research shows that this genre is associated with positive emotional states, as young people who listen to pop music experience joy, happiness, and even relaxation. It is often used in entertainment events, advertising, and marketing due to its ability to evoke positive emotional responses. However, some pop songs can also carry negative emotional undertones, depending on their lyrics.

- Jazz

Jazz, with its complex harmony and improvisation, can train the brain and teach us to accept uncertainty. Emotionally, it can be both melancholic and joyful, but it almost always encourages reflection. Listening to jazz music, especially improvisational jazz, can reduce chronic pain and anxiety. The rhythmic impulsiveness of swing and the unpredictability of melodies can help us cope with uncertainty and anxiety.

Jazz stimulates creative thinking and self-expression. Jazz improvisation activates brain regions associated with imagination and focus. Fast jazz can increase heart rate and improve blood circulation, while slow jazz can relax and lower blood pressure.

- Hip-Hop

Hip-hop can increase levels of energy and self-confidence. The lyrics of this genre often address social issues, which can promote self-expression and emotional processing. In some cases, hip-hop can help individuals cope with difficult life situations and promote a sense of social identity.

However, some studies have noted that hip-hop may contain morally controversial themes (violence, endorsement of crime, and drug use), which can potentially influence the listener's behavior.

- Electronic-music

Electronic music can evoke different emotional responses depending on the subgenre. For example, techno and trance are often associated with a state of euphoria and excitement, while chillout and deep house are associated with relaxation and comfort.

The rhythmic component of electronic genres stimulates the release of endorphins, which can contribute to a sense of well-being. Atmospheric and meditative compositions can promote relaxation and stress relief, while dance styles (house, trance, and drum-&-bass) can provide energy and support physical activity. However, frequent and prolonged listening at high volume can lead to sensory overload, increased levels of cortisol, nervous exhaustion, anxiety, and sleep problems.

It is important to note that the emotional impact of music depends not only on the genre, but also on the individual characteristics of the listener, the context of listening, and cultural factors.

Thus, it can be concluded that music can improve or worsen the emotional state, increase or decrease the level of intelligence. Given the influence of music on the emotional sphere of a person, and the influence of the emotional sphere on his health, now more and more develops such a direction as music therapy.

1.5. Age-Specific Musical Influences on Human Mood.

The effect of music on mood depends on age and is related to physiological changes, emotional development, social factors, and personal associations. Research shows that the response to music changes throughout life, reflecting the stages of personal development and changes in cognitive and emotional processes.

- Children and primary school students

Children's musical preferences are influenced by their environment and family traditions. Simple melodies and rhythms (such as children's songs) attract their attention and help them develop their sense of rhythm and musical ear. Classical music, particularly works by Bach and Mozart, can reduce stress levels, improve mood, and enhance concentration. For example, slow, lyrical compositions often evoke a sense of calm, while energetic pieces can bring joy. However, reactions to specific instruments or genres may vary: for instance, violin music often induces fatigue and boredom in boys, regardless of their age, while it brings tranquility and relaxation to first-grade girls.

- Teenagers

During adolescence, music becomes an important tool for self-expression and identity formation. Teenagers often choose genres that reflect their emotional experiences, rebellious spirit, or desire for social belonging (rock, hip-hop, pop). Energetic music with fast-paced beats and strong bass can boost energy and excitement, while slow, melancholic compositions can help manage sadness or stress. However, some genres (such as heavy metal) can increase aggressive tendencies, and low-frequency sounds in rock, hip-hop, and metal can cause tension or depression. Music can also become a way to escape from reality, which can lead to addiction in some cases.

- Youth and adults

As people grow older, their musical preferences often become more diverse and consistent. Young adults are open to exploring new styles, but their choice of music is often influenced by their personal interests, life experiences, and social environment. For example, pop music can provide motivation and inspiration to overcome challenges, while classical music can enhance concentration and reduce stress. Nostalgia also plays a role: music associated with important events from one's youth can evoke warm memories and improve mood.

- Elderly people

For older adults, music is often associated with memories and nostalgia. Listening to favorite songs from their youth can evoke positive emotions, transport them back in time, and help them preserve their memories. Calming, rhythmic music (such as classical music) can reduce stress, anxiety, and depression, improve mood, and enhance sleep quality. Engaging in active musical activities (such as singing or playing instruments) can further stimulate cognitive functions, improve memory, and enhance concentration. Combining music with other methods, such as nature sounds (such as ocean waves or bird songs), can enhance the overall wellness effects.

Chapter 2. Practical part.

A study on the impact of music on the emotional state of people of different generations.

2.1. Creating a set of musical recommendations to stabilize mood: "Music First Aid Kit".

Based on the data obtained from the study, I have created three listening playlists for each of the four generations, which are a list of music tracks that differ in terms of musical expression. The selection of tracks is based on the musical preferences of the generalized musical preferences of different generations. The music included in the playlists has a healing effect and can be used to promote activity, motivate action, induce emotional excitement, or, conversely, to calm, relax, reduce aggression, and even increase focus. The advantages of music therapy in this case are its absolute harmlessness, simplicity, and ease of use, as well as its ability to quickly regulate emotional state. Additionally, interested individuals can further expand their "Music first aid kit ".

Conclusion

In conclusion, I would like to highlight the unique ability of art, including music, to penetrate the depths of the human soul and evoke a powerful emotional response, something that no other form of science can achieve to such an extent.

The research conducted has demonstrated that music has a predominantly positive impact on a person's psycho-emotional state. During the research process, I personally witnessed the immense power of music's influence on the human psyche and emotional well-being. I was interested in learning about the history of music development in general, about the differences in the perception of music among people of different ages, about music therapy, and about how music can be used to regulate emotions and feelings.

This knowledge not only broadened my horizons, but also helped me to better understand myself and others. The results of the study fully confirmed my hypothesis about the significant impact of music on a person's emotional state, behavior, and mood.

The results achieved during the work allow us to state that the topic of the influence of music on the human emotional world is not only relevant, but also has great potential for further study. The knowledge gained can be useful to a wide range of readers who are interested in understanding the mechanisms of music's impact on the human psyche.

I will quote a phrase by Martin Luther, which, in my opinion, perfectly describes the main idea of my work: "Music is a universal remedy for the soul".